

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND CABLE

Petition of Choice One Communications of Massachusetts)
Inc., Conversent Communications of Massachusetts Inc.,)
CTC Communications Corp. and Lightship Telecom LLC) **D.T.C. 10 - 2**
For Exemption from Price Cap on Intrastate)
Switched Access Rates as Established in D.T.C. 07-9)

PRE-FILED TESTIMONY OF

JAMES D. WEBBER

ON BEHALF OF

One Communications

AUGUST 13, 2010

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1 **I. INTRODUCTION AND SUMMARY**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE**
3 **RECORD.**

4 A. My name is James D. Webber. My business address is 4515 Barr Creek Lane,
5 Naperville, Illinois 60564.

6 **Q. WHAT IS QSI CONSULTING, INC. AND WHAT IS YOUR POSITION**
7 **WITH THE FIRM?**

8 A. QSI Consulting, Inc. (“QSI”) is a consulting firm specializing in regulated
9 industries, econometric analysis and computer-aided modeling. I currently serve
10 as a Senior Vice President.

11 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
12 **WORK EXPERIENCE.**

13 A. I earned a Master of Science degree in Economics in 1993 from Illinois State
14 University. I also received a Bachelor of Science from Illinois State University in
15 1990 where I studied both Economics and Business Administration. I have
16 approximately 18 years of experience working within regulated utilities
17 industries, with the last 16 years focused predominantly on telecommunications.

18 Prior to accepting a position with QSI, I was employed by ATX/CoreComm as
19 the Director of External Affairs. In that capacity, my responsibilities included:
20 management and negotiation of Interconnection Agreements (“ICAs”) and other
21 contracts with telecommunications carriers; management and resolution of

1 operational issues arising out of the Company's relationships with other carriers;
2 management of financial disputes with other carriers; design and implementation
3 of cost minimizations initiatives; design and implementation of legal and
4 regulatory strategies; and, management of the Company's tariff and regulatory
5 compliance filings. I was also involved in the Company's business case
6 modeling.

7 Before joining ATX/CoreComm, I was employed by AT&T from November
8 1997 to October 2000 where I held positions within the Company's Local
9 Services and Access Management organization and its Law and Government
10 Affairs organization. As a District Manager within the Local Services and Access
11 Management organization I had responsibilities over local interconnection and
12 billing assurance. Prior to that position, I served as a District Manager – Law and
13 Government Affairs where I was responsible for implementing AT&T's policy
14 initiatives at the state level.

15 Prior to joining AT&T, I was employed (July 1996 to November 1997) as a
16 Senior Consultant with Competitive Strategies Group, Ltd. ("CSG"), a Chicago-
17 based consulting firm that specialized in competitive issues in the
18 telecommunications industry.

19 From 1994 to 1996, I was employed by the Illinois Commerce Commission
20 ("ICC") where I served as an economic analyst and, ultimately, as manager of the
21 Telecommunications Division's Rates Section. In addition to my supervisory

1 responsibilities, I worked closely with the ICC's engineering department to
2 review Local Exchange Carriers' – and to a lesser extent Interexchange Carriers'
3 (“IXCs”) and Competitive Local Exchange Carriers' - tariffs and contractual
4 offerings as well as the supporting cost, imputation and aggregate revenue data.

5 From 1992 to 1994, I was employed by the Illinois Department of Energy and
6 Natural Resources where I was responsible for modeling electricity and natural
7 gas consumption and analyzing the potential for demand side management
8 programs to offset growth in the demand for, and consumption of, energy. In
9 addition, I was responsible for analyzing policy options regarding Illinois'
10 compliance with environmental legislation.

11 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE DEPARTMENT**
12 **OF TELECOMMUNICATIONS AND CABLE OR ANY OTHER STATE**
13 **PUBLIC UTILITY COMMISSION?**

14 A. No. While I have not previously testified before the D.T.C., I have testified
15 before the FCC, numerous state public utility commissions and in both state and
16 federal court on a number of issues including, for example, cost of service,
17 economic damages, interconnection, pricing, and public policy. A more detailed
18 discussion of my professional experience, including the proceedings in which I
19 have testified and/or provided an expert report can be found in Exhibit JDW-1,
20 attached to this testimony.

21

1 **Q. ON WHOSE BEHALF WAS THIS TESTIMONY PREPARED?**

2 A. This testimony was prepared on behalf of Choice One Communications of
3 Massachusetts Inc., Conversent Communications of Massachusetts, Inc., CTC
4 Communications Corp. and Lightship Telecom LLC., hereafter and collectively
5 known as “One Communications.”¹

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

7 A. The purpose of my testimony is three-fold. My testimony explains the cost
8 analysis QSI has undertaken on behalf of One Communications in an effort to
9 identify the forward-looking, economic costs One Communications incurs to
10 provide switched access services to other carriers in Massachusetts. My
11 testimony will explain the process used by QSI to gather cost and operational data
12 from One Communications and how we used that information within our Network
13 Usage Cost Analysis tool (“NUCA”) to develop per-minute switched access costs.
14 Second, I explain the results of QSI’s analysis and provide what I believe to be
15 reasonable estimates of One Communications’ Massachusetts-specific, switched
16 access costs. Finally, I provide an analysis which compares QSI’s cost estimates
17 for One Communications, with the rates resulting from the D.T.C.’s rate cap,
18 thereby, identifying the proper cost recovery One Communications would be
19 forced to forego absent a Commission decision to forbear from its rate cap.

¹ Choice One Communications of Massachusetts Inc., CTC Communications Corp., Lightship Telecom LLC and Conversent Communications of Massachusetts Inc. all do business in Massachusetts as “One Communications” and are all subsidiaries of the parent company, One Communications Corp.

1 **Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND**
2 **RECOMMENDATIONS.**

3 A. QSI's cost analysis was prepared in accordance with widely accepted industry
4 standards as required by the D.T.C. 07-9 Order.² It is well documented, fully
5 auditable and each of its primary modules include instructions to facilitate review
6 and, to the extent warranted, modification by others. The cost study specifically
7 models One Communications' Massachusetts network while at the same time
8 recognizing the economies of scale and scope enjoyed by One Communications
9 via its much larger, regional network. The table below highlights the fact that
10 One Communications' costs of providing switched access services, on a per-
11 minute of use basis, are substantially higher than the rate cap established in D.T.C
12 07-09.³

² *Petition of Verizon New England, Inc., MCImetro Access Transmission Services of Massachusetts, Inc., d/b/a Verizon Access Transmission Services, MCI Communications Services, Inc., d/b/a Verizon Business Services, Bell Atlantic Communications, Inc., d/b/a Verizon Long Distance, and Verizon Select Services, Inc. for Investigation under Chapter 159, Section 14, of the Intrastate Access Rates of Competitive Local Exchange Carriers, D.T.C. 07-9, at 20, Order on Motion for Reconsideration and Clarification (December 7, 2009).*

³ *Petition of Verizon New England, Inc., MCImetro Access Transmission Services of Massachusetts, Inc., d/b/a Verizon Access Transmission Services, MCI Communications Services, Inc., d/b/a Verizon Business Services, Bell Atlantic Communications, Inc., d/b/a Verizon Long Distance, and Verizon Select Services, Inc. for Investigation under Chapter 159, Section 14, of the Intrastate Access Rates of Competitive Local Exchange Carriers, D.T.C. 07-09 (June 22, 2009) ("D.T.C. CLEC Access Rate Order").*

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Table 1: Comparison of Costs to Rate Cap

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My recommendation is that the D.T.C allows One Communications to establish intrastate switched access rates that exceed the previously established rate cap such that the Company is able to recover its costs as described in this testimony.

Q. ARE THERE ANY EXHIBITS TO YOUR TESTIMONY?

A. Yes. The exhibits to my testimony are as follows:

- Exhibit JDW-1: Curriculum Vitae
- Confidential Exhibit JDW-2: NUCA Output

1 **II. NETWORK USAGE COST ANALYSIS (“NUCA”)**

2 A. *Mechanics of NUCA*

3 **Q. PLEASE PROVIDE A BRIEF OVERVIEW OF QSI’S NUCA PROCESS.**

4 A. QSI’s NUCA process typically begins with the identification of Company
5 engineers who have access to the network design, engineering and other
6 operational data necessary to understand the manner by which services are
7 currently delivered. We likewise identify accounting and other personnel who
8 can provide equipment prices in addition to the accounting detail required to
9 develop investment, installation and annual cost factors and to study the
10 Company’s shared and common cost structure.

11 QSI’s experts meet with those personnel in order discuss the engineering and
12 operational data in order to develop an understanding of the technologies and
13 equipment configurations currently in use, with a particular emphasis on those
14 technologies that have emerged as the company’s preferred, or “best in class,”
15 technology choices. We utilize this information to develop several equipment
16 based “modules” that consistently model discrete portions of the Company’s
17 network (e.g., switching, transport, signaling, etc.). Within each of these
18 modules, Company provided data, purchase orders, invoices and other materials
19 are used to develop forward-looking investments associated with all of the
20 equipment necessary to meet the demand (in minutes of use). As I discuss in
21 more detail below, NUCA converts investments to annual costs through the

1 application of Annual Cost Factors (“ACFs”), which consider the cost of
2 financing investments, depreciation, taxes, etc. NUCA also captures ongoing
3 expenses including, but not limited to, lease costs, shared and common costs to
4 derive total costs. Finally, NUCA divides total costs by projected demand (again,
5 reflected in terms of switched minutes of use) thereby expressing costs on a per-
6 minute of use basis

7 **Q. DOES THE NUCA FOLLOW AN EMBEDDED OR FORWARD-
8 LOOKING METHODOLOGY?**

9 A. As discussed in Dr. Ankum’s direct testimony, NUCA employs a forward-looking
10 approach to cost modeling. Rather than accepting the embedded network and cost
11 structure as given, NUCA develops costs based upon current and forward-looking
12 technology choices.

13 **Q. PLEASE PROVIDE AN OVERVIEW OF NUCA’S DESIGN.**

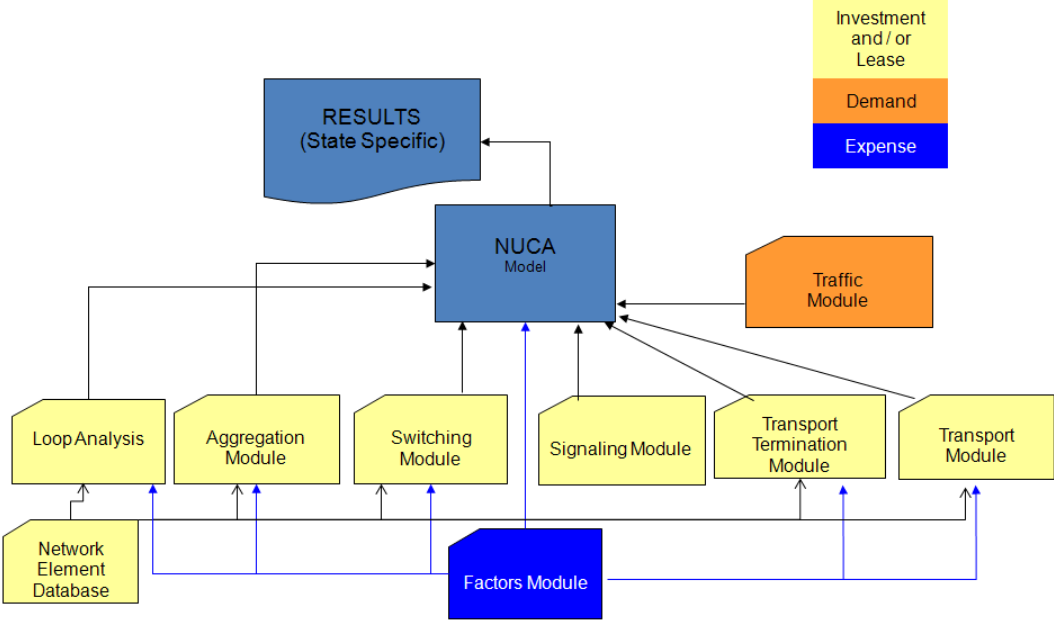
14 A. NUCA is a combination of several different Microsoft Excel®-based workbooks
15 which are referred to as “modules” within the model itself. Figure 1 below
16 provides an overview of how these modules fit together within the NUCA model
17 in order to estimate costs consistent with the theoretical construct described in Dr.
18 Ankum’s testimony.

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Figure 1: Flowchart of NUCA Design



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3 The blue box labeled *Results* in the upper portion of Figure 1 is used primarily to
4 aggregate investment related costs and expenses from the underlying network
5 based modules (i.e., the yellow boxes in the middle of Figure 1). It is also the
6 point at which monthly costs are divided by demand to derive per unit figures.

7 Each of the subject-specific modules highlighted in yellow in the center portion of
8 Figure 1 is specific to a discrete portion of One Communications' network (e.g.,
9 switching, transport, etc.). These modules utilize various engineering
10 assumptions as well as network and invoice related data to derive forward-looking
11 investments. Annual cost factors are applied to the investments amounts,
12 expenses are added, and the resulting monthly costs are fed into the results
13 module where per unit figures are calculated.

1 The *Factors Module* shown in blue toward the bottom of Figure 1 undertakes the
2 financial analysis necessary to calculate annual cost factors which capture capital
3 costs (*i.e.*, return), capital recovery (depreciation) and ongoing expenses (taxes,
4 maintenance, support assets, common and shared costs, etc.). This module also
5 develops and supports certain investment factors such as the power and common
6 investment factor used to estimate the costs of powering various pieces of
7 equipment.

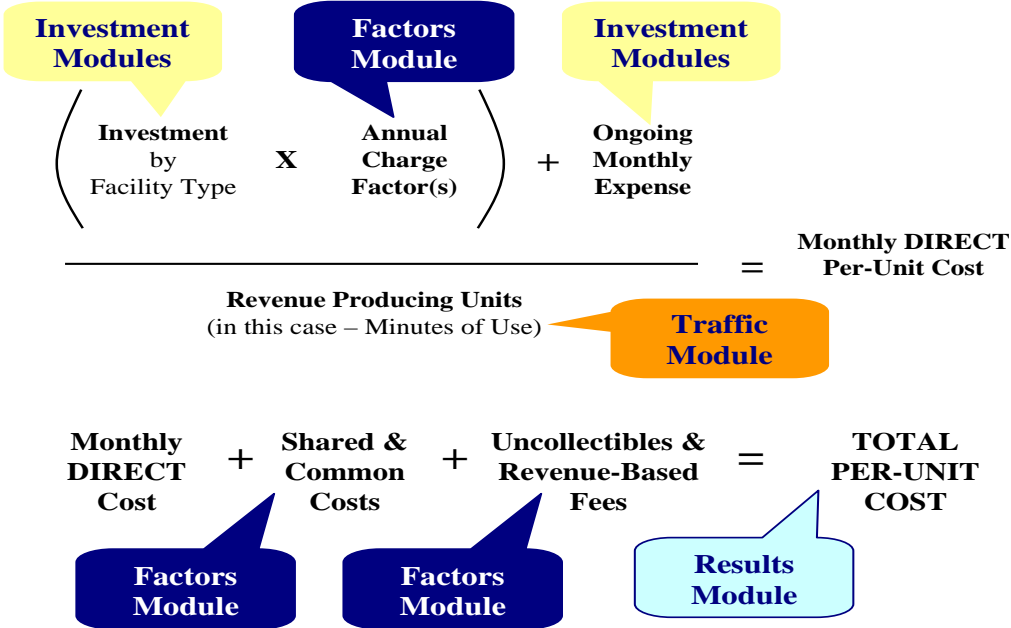
8 Finally, the *Traffic Module* forecasts demand (in minutes of use) likely to be
9 accommodated by One Communications' local switching and transport network,
10 thereby providing the necessary data by which to convert total, network-wide
11 costs into the per-minute of use costs necessary to support per-minute rates.

12 The mathematical logic of the model is summarized within Figure 2 below. The
13 top half of Figure 2 demonstrates that equipment related investment amounts are
14 multiplied by annual cost factors in order to derive investment driven costs.
15 Ongoing expenses are then added to those values and the total dollar amount is
16 divided by demand in order to produce direct costs. In the bottom half of Figure
17 2, shared and common costs as well as uncollectible expenses are added to direct
18 costs in order to produce a total per unit cost.

19

1

Figure 2: Mathematical Logic of NUCA



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4 **Q. IS THE PROCESS DESCRIBED ABOVE CONSISTENT WITH**
5 **INDUSTRY STANDARDS AS REQUIRED BY THE D.T.C.?**

6 **A.** Yes. Figures 1 and 2 depict a typical long run incremental cost analysis that relies
7 upon network data and equipment prices in order to develop forward-looking
8 investments. It likewise depicts the relatively common practice of deriving yearly
9 costs attributable to those investments by the use of annual cost factors (“ACFs”)
10 intended to identify necessary capital, maintenance and tax related expenses. This
11 is fully consistent with typical, long run incremental costs analyses used by many
12 carriers within the telecommunications industry, including, for example, Verizon
13 and AT&T. Likewise, this same approach has been used for many years, and is

1 used today, by the FCC.⁴ Moreover, I note that the inclusion of shared and
2 common costs as well as uncollectible expenses, as discussed by Mr. Fischer, is
3 typical of cost studies within the telecommunications industry as well. In fact, the
4 vast majority of cost studies I have reviewed over the past 16 years have been
5 conducted in this manner and the study presented here is structured in much the
6 same manner as many of the studies I have reviewed on behalf of larger carriers
7 such as AT&T and MCI over the years.

8 **Q. WHICH PORTION(S) OF THE NUCA MODEL ARE ADDRESSED**
9 **WITHIN YOUR TESTIMONY?**

10 A. I specifically address all seven of the yellow boxes shown in Figure 1 (i.e., the
11 various investment modules and the *Network Element Database*). I also address
12 usage related issues included within the *Traffic Module* highlighted in orange and
13 I present the results of NUCA in the last section of my testimony. Mr. Fischer
14 addresses the Factors Module including ACFs, shared/common costs, etc. That
15 being said, the entire model including detailed results, is attached to my testimony
16 as Confidential Exhibit JDW-2 for convenience.

17

⁴ See *In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration*, CC Docket No. 00-218, and *In the Matter of Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia Corporation Commission Regarding Interconnection Disputes With Verizon Virginia Inc.*, CC Docket No. 00-251, Memorandum Opinion and Order, August 28, 2003, at 140-141. (“Virginia Arbitration Order”).

1 **Q. IS THE NUCA MODEL “UNLOCKED” AND FULLY AUDITABLE?**

2 A. Yes. The Microsoft Excel®-based workbooks comprising NUCA as filed in this
3 proceeding are available through the discovery process to those parties who are
4 willing to sign the necessary confidentiality documentation. All workbooks are
5 unlocked, fully auditable and include references to source documents in those
6 circumstances where data are not wholly encapsulated within the model itself.
7 Moreover, each module includes an introductory worksheet which describes the
8 contents of that workbook and provides instruction as to user modification. As
9 such, any analyst familiar with cost studies of this nature should be able to fully
10 review the model, its assumptions and mechanics.

11 **Q. PLEASE DESCRIBE THE UNDERLYING METHODOLOGY OF THE**
12 **MODEL?**

13 A. Dr. Ankum addresses the underlying economic underpinnings of the NUCA
14 model in his testimony. However, for purposes of my discussion, Dr. Ankum
15 makes two particularly relevant points about the model’s underlying method: (1)
16 the study is “forward-looking” and (2) it models “total demand” (i.e., it captures
17 and allocates costs associated with all of One Communications’ switched voice
18 services).

19 **Q. HOW DOES NUCA ENSURE THAT IT IS CAPTURING ONLY**
20 **“FORWARD-LOOKING” COSTS?**

21 A. NUCA models only those network arrangements and technologies that One
22 Communications’s engineers and network planners intend to use going forward in

1 the operation of its business. NUCA specifically ignores technologies that One
2 Communications no longer intends to purchase or maintain in the future, even
3 though there may be large quantities of that equipment still in use in the One
4 Communications network. NUCA accomplishes this “updating” of the network
5 via “technology substitution.” As an example, assume One Communications
6 currently purchases and installs multiplexer A, because it is more efficient and/or
7 less costly than multiplexer B which was used predominately in the past. Even
8 though there may be hundreds of the multiplexer B’s used in the current,
9 embedded One Communications Network, NUCA completely ignores them,
10 opting instead to model the more efficient, lower cost multiplexer A in all
11 multiplexing scenarios. The highly simplistic example below demonstrates the
12 impact of this type of technology substitution when comparing the “forward-
13 looking” approach adopted by NUCA, versus an embedded cost analysis.

14

Figure 3: Technology Substitution Example

	\$ / Cost	Embedded Network		NUCA - Forward Looking	
		Quantity	Total Investment	Quantity*	Total Investment
Multiplexer A	\$800.00	2	\$1,600.00	480	\$384,000.00
Multiplexer B	\$1,200.00	500	\$600,000.00	0	\$0.00
TOTAL INVESTMENT			\$601,600.00	\$384,000.00	

16

* Not only is multiplexer A less costly, it is more efficient, thereby requiring fewer total multiplexers

17

18

Using the example above, whereas an embedded or accounting based model
19 would attribute a total of \$601,600.00 of multiplexer investment for recovery via

19

1 rates, NUCA (using its forward-looking approach), models only \$384,000.00. As
2 Dr. Ankum explains, this “re-modeling” of the network, and the forward-looking
3 costs that result, better match the “replacement” costs of the network that an
4 efficient competitor not encumbered by prior business decisions regarding less
5 efficient technologies could employ.

6 While QSI recognizes that One Communications has evolved over time both
7 organically and through mergers/acquisitions and, as such, One Communications’
8 network is a byproduct of its evolution, NUCA is not anchored to the legacy
9 networks nor are the investments utilized within NUCA based on One
10 Communications’ embedded books of account. NUCA is intended to reflect costs
11 the Company is likely to experience in the future rather than those which were
12 incurred in years past.

13 **Q. PLEASE GIVE SOME SPECIFIC INDICATIONS ABOUT HOW NUCA**
14 **EMPLOYS THE “FORWARD-LOOKING” APPROACH YOU’VE**
15 **DESRIBED ABOVE.**

16 A. While the individual applications of this guiding methodology within the model
17 are far too numerous to identify here, I have provided below some of the more
18 important applications as they are effectuated by NUCA:

19 (a) NUCA utilizes a “model office” approach for switching. In other
20 words, QSI generally identifies particular office configurations
21 which are considered to be “best in class” by the company’s
22 engineers. NUCA then uses these “model” offices to estimate
23 capacity-based costs (i.e., costs incurred at various levels of output
24 such as DS1 or DS3 ports). These capacity based costs resulting

1 from the “model” office are then used to calculate capacity based
2 costs in all other offices.

3
4 (b) NUCA undertakes a similar “model office” approach for
5 equipment in One Communication’s Access Nodes used to
6 aggregate traffic for delivery to the switch. Ideal or “model,”
7 configurations are developed based on discussions with the
8 Company’s engineers. Likewise, the modeled equipment within
9 the Access Nodes is generally sized by NUCA to match forecasted
10 demand for services, even though the equipment may have
11 originally been sized much larger in anticipation of demand that
12 has not yet materialized. In this way, NUCA assumes the network
13 is sized efficiently in relation to demand irrespective of the fact
14 that the actual network may not be sized as efficiently. This is
15 another way in which NUCA ensures that only efficient, least-cost
16 configurations are used to estimate costs.

17
18 (c) The same “best in class” process described in (a) and (b) above is
19 employed throughout the model in relation to all other equipment
20 including transport termination equipment, signaling equipment,
21 etc.
22

23 **Q. IN ADDITION TO TECHNOLOGY SUBSTITUTION, DOES NUCA ALSO**
24 **TAKE INTO ACCOUNT THAT PRICES FOR**
25 **TELECOMMUNICATIONS EQUIPMENT (EVEN THE SAME**
26 **EQUIPMENT) HAVE GENERALLY FALLEN OVER TIME?**

27 A. Yes. Assume that the company had purchased a fiber multiplexer in 1999, for a
28 price of \$65,000. Assume further that the company still uses this piece of
29 equipment in its network today and intends to employ it into the future. Further
30 assume that the Company could purchase that same, or a similar, piece of
31 equipment today for only \$50,000. NUCA, in that circumstance, would use the
32 \$50,000 price in developing forward-looking costs associated with this equipment
33 wherever it was found in the network, thereby ignoring the embedded costs

1 actually paid. Likewise, to the extent the new purchase contract for this
2 equipment included any discounts or special terms and conditions, NUCA would
3 incorporate those as well (even if equipment actually deployed in the network did
4 not have access to those discounts). NUCA also ignores any accumulated
5 depreciation that the Company might show on its books related to the older
6 equipment. Instead, NUCA would assume that the equipment is purchased in the
7 current timeframe. NUCA then estimates a levelized stream of depreciation
8 payments (annualized depreciation cost) to be made over the economic life of the
9 equipment. It is this levelized stream of expenses that are used to calculate yearly
10 and then monthly costs which are ultimately unitized into per unit costs via the
11 use of forecasted demand.

12 **Q. HOW IS THE “TOTAL DEMAND” CONCEPT INCORPORATED INTO**
13 **THE NUCA?**

14 A. In the case of One Communications, the Company provides both local and long
15 distance services to its end user customers and a variety of interconnection like
16 services to other telecommunications carriers including, for example, local
17 termination (i.e. reciprocal compensation), originating switched access and
18 terminating switched access. NUCA recognizes these facts and, indeed, accounts
19 for total demand in that all usage on the network - whether local, intraLATA,
20 interLATA, etc. - are accounted for. And, all network based costs are considered
21 against the backdrop of all usage. Moreover, we have recognized that the
22 telecommunications network is also utilized for data based services and have

1 accounted for those services within the studies. In this way, NUCA's per-minute
2 of use output captures the totality of demand placed upon the network.

3

4 *B. Network Element Database*

5 **Q. PLEASE BRIEFLY DESCRIBE THE NETWORK ELEMENT DATABASE**
6 **IDENTIFIED IN THE LOWER LEFT HAND PORTION OF FIGURE 1**
7 **AND ITS PURPOSE WITHIN THE NUCA MODEL.**

8 A. Obviously, telecommunications networks rely upon myriad equipment and
9 technological arrangements. One of the most challenging aspects of cost
10 modeling is to identify that equipment, ensure it is properly sized within the
11 conceptual construct of the model, and then estimate the resources a company like
12 One Communications must expend to purchase, install, and test that equipment so
13 as to ready it for service within the network. NUCA uses a centralized database -
14 the *Network Element Database* (or "*NED*" for short) - to ensure that this process
15 of sizing and "purchasing" necessary equipment is accomplished consistently
16 throughout the modeled network. Printouts of the *Network Element Database*
17 specific to One Communications begins at page 172 of Confidential Exhibit
18 JDW-2. It originates from a Microsoft Excel®-based workbook comprised of 18
19 separate worksheets, or tabs⁵, an example of which is contained in Figure 4
20 below.

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⁵ I used "worksheets" and "tabs" synonymously throughout this testimony as I refer to distinct portions of a module or workbook.

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Figure 4: Network Element Database Example

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1 Each worksheet within the *Network Element Database* includes specific detail
2 regarding the pieces of telecommunications equipment modeled throughout
3 NUCA. The *Network Element Database* satisfies three objectives within the
4 NUCA architecture. First, as shown in Figure 4 above, it provides documentation
5 regarding equipment prices used within NUCA. In many instances, this
6 workbook maintains copies of price quotes, price lists, purchase orders and/or
7 invoice materials which can be reviewed, verified or updated over time. Second,
8 the *Network Element Database* serves as a common “warehouse” for equipment
9 used in multiple modules within the NUCA model. For example, when the
10 *Transport Termination Module* requires a cross connect panel, it queries the
11 *Network Element Database* for the properly sized unit and adds the necessary
12 investment and/or expense. Likewise, if a cross connect panel is required in an
13 aggregation arrangement in a One Communications collocation arrangement, the
14 *Aggregation Module* likewise queries the *Network Element Database* for the same
15 equipment. This helps to ensure that equipment prices are consistent across
16 modules and minimizes the potential for human error. It also provides a
17 centralized system for updating prices and/or equipment. Finally, the *Network*
18 *Element Database* provides analysts who may desire to review NUCA and/or
19 modify prices or equipment within the model a convenient location for these
20 purposes.

21 **Q. IS THE ELECTRONIC VERSION OF THIS ANALYSIS UNLOCKED**
22 **AND FULLY AUDITABLE?**

1 A. Yes. The file entitled “*One Communications NUCA – Network Element*
2 *Database.xls*” is unlocked and auditable.

3

4 C. *Loop Cost Analysis*

5 **Q. PLEASE DESCRIBE THE LOOP ANALYSIS DEPICTED AT THE FAR**
6 **LEFT HAND SIDE OF FIGURE 1.**

7 A. The *Loop Cost Analysis Module* captures costs incurred by One Communications
8 to extend service from the edge of its switching and aggregation network directly
9 to the end-user customer who makes and/or receives calls. A hard copy of the
10 *Loop Cost Analysis Module* is contained within Confidential Exhibit JDW-2 to
11 this testimony at pages 161 through 171. It is important to note that the bulk of
12 the costs produced within this module – and then fed into the *Results Module* –
13 are expense driven. In other words, the vast majority of loop-related costs
14 incurred by One Communications are payments made to other
15 telecommunications carriers (e.g., Verizon) and are simply passed-through to the
16 production of various services, including switched access. The **DS0 Loops** tab
17 captures monthly recurring charges assessed to One Communications by its
18 vendors related to DS0 level leased loops while the **DS1 and Above Loops** tab is
19 related to DS1 and higher loops. Lease expenses included within this module
20 were provided to QSI in February 2010 and include database output related to the
21 most recent month's actual vendor invoices assessed One Communications as of
22 February 10, 2010.

1 In addition to leased loop expenses, the **IAD Inventory** tab, beginning at page
2 169 of Confidential Exhibit JDW-2, as well as the **IAD Monthly Costs** tab,
3 beginning at page 166 of Confidential Exhibit JDW-2, identify the number of
4 integrated access devices (“IAD”) One Communications has deployed throughout
5 Massachusetts in order to provide its customers combined voice and data services
6 over a single loop facility. This portion of the module also identifies equipment
7 prices, calculates investment amounts and calculated monthly expenses associated
8 with these IADs.

9 **Q. DOES NUCA ALLOCATE COSTS BETWEEN VOICE AND DATA**
10 **SERVICES?**

11 A. Yes, it does. As is typical of most local exchange carriers, One Communications
12 provides both voice and data related services to its customers using both
13 equipment that may be dedicated to one or the other, but also equipment that will
14 be shared by both. A good deal of the Company’s equipment and facilities placed
15 throughout the state are certainly used to support both data and switched voice
16 services. Because NUCA is intent upon identifying only those costs that support
17 switched voice services, data-related expenses must be removed.

18 **Q. HOW WERE DATA RELATED COSTS IDENTIFIED AND REMOVED?**

19 A. In a perfect world, for costing purposes, the company would track, either by
20 circuit or by kilobit, the capacity used to support either switched voice or data
21 services. Unfortunately, in modern networks, integrated providers like One
22 Communications have no business-driven need to undertake this type of

1 segregation. Hence, proxy information is often the best method by which to
2 estimate the amount of the network's capacity used to support voice, relative to
3 data. In the case of One Communications, QSI relied, in part, upon an
4 independent analysis of the Company's model collocation site as well as the
5 Company's collocation experts to derive proxy data in this regard. Specifically, I
6 undertook an independent analysis of the model collocation site identified at p. 30
7 of Confidential Exhibit JDW-2. Given that there are ***** BEGIN**
8 **CONFIDENTIAL**
9 **END CONFIDENTIAL ***]** for a total of ***** BEGIN**
10 **CONFIDENTIAL** **END CONFIDENTIAL ***]** and that
11 the Company's configuration of its stand alone DSLAMs⁶ located in that office
12 can accommodate a total of ***** BEGIN CONFIDENTIAL**
13 **END CONFIDENTIAL ***]**, a voice and DSL split of approximately *******
14 **BEGIN CONFIDENTIAL** **END**
15 **CONFIDENTIAL ***]** is indicated. Additionally, the Company's collocation
16 expert confirmed that the split between DS0 and data (primarily Digital
17 Subscriber Line - "DSL") lines in Massachusetts collocations is conservatively
18 ***** BEGIN CONFIDENTIAL** *******
19 **END CONFIDENTIAL]**. And, although DSL lines support strict data
20 applications as well as switched-voice and data applications, this range provides a
21 conservative starting point for allocation. These data are corroborated by the

⁶ Digital Subscriber Line Access Multiplexer ("DSLAM")

1 **One Comm. TB – Income Statement** tab within the *Factors Module* which
2 shows the Company’s revenues are derived from approximately ***** BEGIN**
3 **CONFIDENTIAL** **END CONFIDENTIAL**
4 *****]** related services, thereby suggesting that the expert opinion of the Company
5 engineers as to the voice/DSL split serves as a reasonable proxy for the voice/data
6 split.

7 Hence, based upon conversations with One Communications’ experts, review of
8 the available financial data and the combined voice and DSL equipment identified
9 in the model collocation site, ***** BEGIN CONFIDENTIAL**
10 **END CONFIDENTIAL ***]**⁷ multi-services access
11 device was configured within the *NED* to approximate the voice/DSL percentages
12 discussed above based (i.e., the “universal card slots” were configured to
13 accommodate both voice and DSL ports of the type currently deployed in newer
14 installations within the Company’s network). The resulting voice/DSL split based
15 upon the card types used by the company is ***** BEGIN CONFIDENTIAL**
16 **END CONFIDENTIAL ***]** as identified at
17 page 185 of Confidential Exhibit JDW-2. Table 1 below shows how costs are

⁷ This multi-services access device takes the place of both the company’s traditional DS0 access and aggregation device AND its more widely used DSLAMs within the Aggregation Module in a lower cost technology substitution as described later in this section of my testimony. It performs both DS0 access and aggregation functions in addition to providing various “flavors” of DSL types services typically available through dedicated DSLAMs.

1 conservatively allocated between voice and data services based upon this proxy
2 within the *Loop Cost Analysis* included in Confidential Exhibit JDW-2 and
3 demonstrates that only voice related costs are carried forward into the *Results*
4 *Module* of NUCA.

5 **Table 2: Massachusetts Loop Cost Analysis**

6 *****BEGIN CONFIDENTIAL**

7
8 **END CONFIDENTIAL *****

9 **Q. IS THE ELECTRONIC VERSION OF THIS ANALYSIS UNLOCKED**
10 **AND FULLY AUDITABLE?**

11 A. Yes. The electronic version of the *Loop Cost Analysis Module* comprises one
12 workbook with nine separate tabs, each of which is fully unlocked and auditable⁸.
13 Moreover, in circumstances where data are summarized and/or extracted from
14 other locations, the source file is referenced within the relevant tab in order to
15 facilitate analysts' review of these calculations.

16
17

⁸ See One Communications NUCA – Loop Cost Analysis MA.xls.

1 *D. Aggregation*

2 **Q. IS THE AGGREGATION MODULE DEPICTED IN FIGURE 1 ABOVE**
3 **INCLUDED WITHIN CONFIDENTIAL EXHIBIT JDW-2?**

4 A. Yes, it is. The *Aggregation Module* can be found at pages 15 through 40 of
5 Confidential Exhibit JDW-2.

6 **Q. PLEASE DESCRIBE THE OVERALL PURPOSE AND ARCHITECTURE**
7 **OF THE AGGREGATION MODULE.**

8 A. Unlike ILEC networks which rely predominately on hundreds of independent
9 switches deployed throughout a state, One Communications deploys only a
10 limited number of switches to cover roughly the same geographic area. It can
11 substantially lessen the number of switches it uses by deploying numerous
12 aggregation nodes (predominately located in ILEC central offices within
13 collocation arrangements) which extend the capabilities of its switch into the
14 various geographic markets it intends to serve. These aggregation nodes
15 aggregate traffic (usually from loops leased from ILECs and other carriers) and
16 transport that traffic back to just a few, centralized switches (and likewise, deliver
17 traffic from those switches to various customers). The *Aggregation Module*
18 captures the investment-related costs and ongoing expenses associated with
19 building and maintaining these aggregation arrangements, comprised largely of
20 collocation build-out and equipment related costs and lease expenses. It should
21 be noted that transport facilities, and the associated costs, are not captured within

1 the *Aggregation Module*. Instead, transport costs are found in the *Transport*
2 *Module* discussed later in this testimony.

3 Within the *Aggregation Module*, the tab entitled **Model-1** develops investments
4 and, through the application of ACFs as depicted in Figure 2 above, monthly costs
5 related to aggregation equipment and collocation build-out. These figures are
6 based upon a typical Massachusetts collocation deployment that One
7 Communication’s engineers have identified as the most likely “forward-looking”
8 model - with one exception. The DSLAM⁹ and DS0 aggregation equipment that
9 actually exists in One Communications’ collos, is not “state of the art” (i.e., One
10 Communications has generally not added new aggregation locations in the recent
11 past). Hence, as described later in this testimony, NUCA assumes that the actual
12 DSO aggregation and DSLAM equipment has been replaced with a newer,
13 combined multimedia device that address both DS0 and DSL aggregation
14 functionalities within a single device. The equipment prices included in the
15 **Model-1** tab are taken from the *NED* included with NUCA and ultimately
16 originate with actual vendor invoices, current price lists and other contemporary
17 pricing detail.

18 The tab entitled **Lease Expense** reflects a single month’s collocation lease
19 expense paid by One Communications for all collocations within the
20 Commonwealth of Massachusetts. These expenses are mapped to the **Results by**

⁹ Digital Subscriber Line Access Multiplexer (“DSLAM”).

1 **State** tab and, where applicable, have been reduced to account for the existence of
2 multiple collocation sites within one ILEC central office.¹⁰

3 Collocation costs attributed to each unique CLLI code in which One
4 Communications maintains physical or cageless collocation arrangements are
5 derived within the **Collocation Inventory** tab of the *Aggregation Module* and are
6 summarized at the state level in the **Results by State** tab. Because collocation
7 arrangements support both voice and data services, monthly collocation costs are
8 reduced by an amount to account for costs attributable to data services as
9 explained earlier.

10 **Q. IS THE ELECTRONIC VERSION OF THIS MODULE UNLOCKED AND**
11 **FULLY AUDITABLE?**

12 A. Yes. The electronic version of the *Aggregation Module* comprises one Microsoft
13 Excel® workbook with 16 separate tabs, each of which is fully unlocked and
14 auditable. Moreover, in circumstances where data are summarized and/or pulled
15 from other locations, the source file is referenced within the relevant tab in order
16 to facilitate analysts' review of these calculations. Hence, the remainder of my
17 discussion in this regard will refer to the paper version of this study as contained

¹⁰ Because One Communications has grown based upon the acquisition of other communications providers, circumstances exist whereby One Communications may maintain multiple collocation arrangements within the same ILEC central office. This is not generally the "most efficient" or "least cost" option for purposes of a "forward-looking" cost study. In those situations, NUCA redesigns the collocation space to remove unnecessary redundancy, and likewise, removes the monthly expenses that would otherwise accrue to multiple collocation arrangements.

1 in Confidential Exhibit JDW-2 to this testimony and the electronic version of the
2 *Aggregation Module* interchangeably.

3

4 **Q. WHAT IS THE SOURCE OF THE “COLLOCATION INVENTORY”**
5 **NOTED ABOVE?**

6 A. One Communications’ experts provided a report to QSI in February of 2010
7 which identifies each of the offices in which the Company maintained either
8 physical or cageless collocation as of the end of January 2010. At the same time,
9 the Company also provided a report which identified active DS0, DS1 and DS3
10 line counts for each such collocation. The collocation inventory utilized within
11 NUCA’s *Aggregation Module* is based upon these data.¹¹

12 **Q. HOW WERE THE EQUIPMENT PRICES INCLUDED IN THE MODEL-1**
13 **TAB OF THIS MODULE DETERMINED?**

14 A. These figures are pulled from the *NED* described above.

15 **Q. EARLIER YOU DESCRIBED THAT THE *AGGREGATION MODULE***
16 **ENGAGES IN TECHNOLOGY SUBSTITUTION WHEREIN MULTIPLE**
17 **DSO AND DSL DEVICES ARE REPLACED WITH A SINGLE DEVICE**
18 **INTENDED TO PERFORM BOTH DS0 AND DSL AGGREGATION**
19 **FUNCTIONS. PLEASE DESCRIBE THIS IN MORE DETAIL.**

¹¹ The source files are specifically identified within the *Collocation Inventory* tab at row 660.

1 A. After having discussions with One Communications’ collocation experts and
2 touring the model collocation site utilized within the *Aggregation Module* to
3 determine the basic equipment layout, it was clear that One Communications’
4 standard practice has been to utilize two separate devices for purposes of
5 aggregating basic DS0, or voice grade, loops and DSL type loops. This is not at
6 all surprising as this has been standard practice for years. In the past, One
7 Communications relied upon *****BEGIN CONFIDENTIAL**
8 **END CONFIDENTIAL***** to support its voice circuits.
9 However, One Communications is no longer purchasing new *****BEGIN**
10 **CONFIDENTIAL** **END CONFIDENTIAL*****
11 because the equipment is no longer available for purchase through the original
12 equipment manufacturer. One Communications’ forward-looking choice of
13 equipment for purposes of provisioning DSL products, is to utilize *****BEGIN**
14 **CONFIDENTIAL**
15 **END CONFIDENTIAL*****.
16 Importantly, the newer *****BEGIN CONFIDENTIAL** **END CONFIDENTIAL*****
17 **END CONFIDENTIAL***** will support both voice and data (DSL) products.
18 Given that the prior equipment is no longer the first choice of One
19 Communications engineers, and the fact that current pricing information for this
20 equipment is difficult to find (because it is no longer supported by the
21 manufacturer), I decided that technology substitution was the best method by
22 which to ensure NUCA’s continued adherence to the “forward-looking” cost
23 principles described by Dr. Ankum in his testimony. Hence, despite the fact that

1 the Company’s network will continue to rely upon two older pieces of equipment
2 for DS0 and DSL services on a going forward basis, I have elected to develop cost
3 estimates based on the use of a single, more efficient and contemporary device
4 that manages both DS0 and DSL services.

5 **Q. DOES THIS SUBSTITUTION INCREASE COSTS?**

6 A. No, it reduces NUCA’s estimate of forward-looking costs compared to costs that
7 would be derived using the older DSLAM and DSO aggregation equipment. The
8 *****BEGIN CONFIDENTIAL END**
9 **CONFIDENTIAL ***]** device included within the *Aggregation Module* serves
10 ***** BEGIN CONFIDENTIAL**
11 ***** END CONFIDENTIAL]**, yet,
12 it costs ***** BEGIN CONFIDENTIAL END**
13 **CONFIDENTIAL ***]**¹² based upon available pricing data. As such, my
14 decision to employ technology substitution in this instance results in per unit
15 investments that are lower than would otherwise have been the case.

16 **Q. PLEASE DISCUSS THE PROCESS BY WHICH COLLOCATION LEASE**
17 **COSTS WERE REDUCED TO ACCOUNT FOR MULTIPLE**
18 **COLLOCATIONS AT ONE CENTRAL OFFICE.**

19 A. Simply put, the **Collocation Inventory** tab within the *Aggregation Module*
20 identifies ***** BEGIN CONFIDENTIAL END CONFIDENTIAL ***]**

¹² Line counts for the combined unit are identified within Exhibit JDW-2 at page 185, which is the paper/PDF equivalent of the “MALC” tab within the “Network Element Database.xls” file.

1 unique central offices in which One Communications maintains cageless and/or
2 physical collocation arrangements in Massachusetts.¹³ In many cases, however,
3 the Company maintains multiple collocations within a single central offices and,
4 in fact, it maintained a total of [*** BEGIN CONFIDENTIAL END
5 CONFIDENTIAL ***] collocations arrangements within these central offices as
6 of February of this year. In order to remove any unnecessary redundancy, NUCA
7 reduces total collocation lease costs to reflect the possibility that if the Company
8 built out its collocation network today, it could likely consolidate collocation sites
9 to reflect only the number of unique central offices rather than the total of all
10 collocation arrangements within these offices. While this conceptual
11 consolidation effort is difficult to accomplish in the abstract, we have,
12 nonetheless, reduced total collocation lease costs by [*** BEGIN
13 CONFIDENTIAL END CONFIDENTIAL ***] in an
14 effort to ensure the NUCA produces reasonable estimates. The specific reduction
15 is based on the number Verizon central offices in Massachusetts wherein One
16 Communications maintains multiple collocation spaces.¹⁴ We believe that this is
17 an aggressive reduction that is likely to understate actual forward-looking costs.
18 The table below details the actual reduction. Whereas One Communications
19 actually pays approximately [*** BEGIN CONFIDENTIAL END
20 CONFIDENTIAL ***] per month in collocation lease expenses, NUCA captures

¹³ These data are current as of February 2010.

¹⁴ See Confidential Exhibit JDW-2 at P.21.

1 facilities without the opportunity for proper cost recovery. Additionally, given
2 that aggregation/collocation facilities and transport services allow companies like
3 One Communications the ability to deploy relatively few switches as opposed to
4 deploying one switch in each exchange where they serve customers, deployment
5 of these aggregation arrangements substantially reduce One Communications
6 costs of providing switched voice services (including switched access). Hence,
7 including collocation costs is less expensive than the alternative, which would be
8 to develop a cost study that assumes one switch per Verizon central office in
9 which One Communications serves end user customers.

10

11 *E. Switching*

12 **Q. PLEASE BRIEFLY DESCRIBE THE SWITCHING MODULE**
13 **IDENTIFIED IN FIGURE 1.**

14 A. The *Trunk-to-Trunk Switching Module* is a Microsoft Excel® workbook
15 comprised of 14 interlinked worksheets. In its native form, the workbook is
16 unlocked and fully auditable such that analysts interested in the details of this
17 module can fully examine its calculations. The paper version of this workbook
18 begins a page 242 of Confidential Exhibit JDW-2.

19 The *Trunk-to-Trunk Switching Module* is designed to estimate forward-looking
20 costs associated with switching all types of traffic (local, long distance, reciprocal
21 comp, etc.) through One Communications' switches in Massachusetts. Costs
22 developed within this module account for the switches currently utilized by the

1 Company as those switches will be utilized in Massachusetts on a going-forward
2 basis. In addition to identifying costs related to switches themselves, this module
3 also includes costs associated with equipment utilized to support those switches.
4 This equipment is identified and costs are accounted for in the **Routers Switches**
5 **SBCs** tab. Total, combined equipment related expenses are found the **Results by**
6 **State** tab.

7 **Q. WHAT TYPES OF SWITCHES DOES ONE COMMUNICATIONS**
8 **CURRENTLY UTILIZE IN MASSACHUSETTS?**

9 A. One Communications currently relies upon ***** BEGIN CONFIDENTIAL**
10 **END CONFIDENTIAL ***]** different switching platforms in Massachusetts,
11 including a combination of traditional circuit switches (also known as “Time
12 Division Multiplexed” or “TDM” switches) as well as soft-switches. For costing
13 purposes, NUCA derives all TDM switch costs based upon Lucent 5ESS switches
14 identified as the most “forward-looking” model. Similarly, softswitch costs
15 included in the *Trunk-to-Trunk Switching Module* are based upon the Metaswitch
16 architecture most prevalent throughout One Communications’ network in
17 Massachusetts.

18 **Q. HAVE YOU VISITED THE MODEL SWITCH LOCATIONS?**

19 A. Yes. One Communication’s engineers identified both the Lucent 5ESS and the
20 Metaswitch arrangement located in Springfield, Massachusetts as the “model”
21 offices they believed best captured their “forward-looking” design. I was able to
22 visit and evaluate both switches and accompanying support equipment.

1 Q. WHAT PERCENTAGE OF THE SWITCH PORTS INCLUDED IN THE
2 STUDIES PRESENTED IN MASSACHUSETTS ARE ASSOCIATED
3 WITH TDM, OR CIRCUIT SWITCHES, AS COMPARED TO
4 SOFTSWITCHES?

5 A. Roughly [*** BEGIN CONFIDENTIAL END CONFIDENTIAL ***]
6 of the trunk ports for which costs are developed within the *Trunk-to-Trunk*
7 *Switching Module* relate to softswitches whereas [*** BEGIN
8 CONFIDENTIAL END CONFIDENTIAL ***] of the trunk ports for
9 which costs are developed relate to TDM switches.

10 Q. WHERE ARE THE LUCENT-BASED INVESTMENTS DEVELOPED
11 WITHIN THE TRUNK-TO-TRUNK SWITCHING MODULE AND HOW
12 DO THESE FIGURES TRANSLATE INTO MONTHLY COSTS?

13 A. The major investments associated with Lucent switches were tracked by One
14 Communications' Switch Engineering organization throughout time for planning
15 purposes. These investments are identified within the **5E EF&I** tab within the
16 *Trunk-to-Trunk Switching Module* and the source for each line item has been
17 identified as well. The investment figures are modified by use of the TPI factors
18 discussed by Mr. Fischer to bring prices to current values. Then, the investments
19 are "grossed-up" to account for sales taxes, telco installation and power and
20 common investments as discussed by Mr. Fischer and expressed on a "per DS3"
21 basis within the **5E Unit Investment** tab. Unit costs are then converted to
22 monthly costs after the application of investment and annual cost factors within

1 the **5E Monthly** tab. These “model office” costs per DS3 port are then multiplied
2 by equipped DS3 counts identified within the **Switch Inventory** tab for other
3 switch sites. In this way, total switching costs throughout the state can be
4 calculated using the most efficient, “model office” costs.

5

6 **Q. IS THE PROCESS SIMILAR FOR THE METASWITCH BASED**
7 **INVESTMENTS?**

8 A. Yes, it is nearly identical. The major differences are that certain equipment used
9 by One Communications in conjunction with the Metaswitch architecture has
10 been identified and accounted for within the **Routers Switches and SBCs** tab.
11 Here, equipment descriptions, locations, quantities and costs estimates are
12 provided for each of the network components necessary to carry voice traffic over
13 the softswitches deployed within Massachusetts. Additionally, the use of TPI
14 factors to bring Metaswitch equipment prices to current values was unnecessary
15 due to the vintage of prices provided by One Communications.

16

17 *F. Signaling*

18 **Q. PLEASE BRIEFLY DESCRIBE THE COSTS CAPTURED BY THE**
19 **SIGNALING MODULE IDENTIFIED IN FIGURE 1.**

1 A. The *Signaling Module*¹⁶ is designed to capture costs associated with One
2 Communications-owned SS7 signaling equipment as well as signaling related
3 vendor expenses incurred to support the Company's business throughout its
4 operating area. Equipment related costs and expenses included in the NUCA
5 presented here total approximately ***** BEGIN CONFIDENTIAL**
6 **END CONFIDENTIAL *****].

7 **Q. HOW DID YOU OBTAIN SIGNALING EQUIPMENT INVENTORY AND**
8 **EQUIPMENT PRICING DETAIL?**

9 A. I was paired with a One Communications Manager of Product Engineering who
10 was knowledgeable as to the Company's deployment and use of Signaling
11 Transfer Point ("STPs") within its network. An inventory of this equipment is
12 identified in the **Signaling Equipment** tab of the *Signaling Module*.¹⁷ Similarly,
13 pricing detail for STP equipment was provided and is documented within that
14 same tab. In the case of one particular STP model, pricing detail was unavailable.
15 Hence, prices taken from the updated version of that particular model were used
16 within this module for consistency purposes.

17 **Q. HOW DID YOU OBTAIN THE SIGNALING EXPENSE DETAIL**
18 **INCLUDED WITHIN THE STUDIES PRESENTED HERE?**

19 A. One Communications was able to provide a database report which included the
20 most recent month's invoiced charges from Verizon that are related to SS7

¹⁶ This module begins at page 193 of Confidential Exhibit JDW-2.

¹⁷ See p.199 of Confidential Exhibit JDW-2.

1 expenses as of February 10, 2010. These expenses are identified in the **Signaling**
2 **Expense** tab of the *Signaling Module* and the underlying USOC level detail is
3 included in the source files.

4 **Q. IS THE ELECTRONIC VERSION OF THIS ANALYSIS UNLOCKED**
5 **AND FULLY AUDITABLE?**

6 A. Yes.

7

8 *G. Transport*

9 **Q. PLEASE BRIEFLY DESCRIBE THE COSTS IDENTIFIED WITHIN THE**
10 **TRANSPORT MODULE.**

11 A. The *Transport Module* is designed to capture monthly transport lease costs
12 incurred by One Communications in the provisioning of its services. The **MRCs**
13 tab captures monthly recurring charges assessed to One Communications by its
14 various vendors. And, the **IRUs** tab captures monthly expenses associated with
15 Massachusetts fiber facilities obtained by One Communications under
16 indefeasible right of use (“IRU”) agreements.¹⁸ The **Results by State** tab sums
17 these two categories and presents total monthly expenses.

18 **Q. HOW DID YOU OBTAIN THE TRANSPORT EXPENSE DETAIL**
19 **INCLUDED WITHIN THE TRANSPORT MODULE??**

¹⁸ IRU agreements are contracts between carriers where one carrier purchase the exclusive, unrestricted and indefeasible right to use the other carrier’s dark fiber facilities. The carrier purchasing the IRU typically assumes all maintenance obligations.

1 A. The transport lease and IRU expenses data included within this module were
2 provided to QSI in February of 2010 and include database output reflecting the
3 most recent month's vendor invoice One Communications categorizes as transport
4 and IRU, respectively.

5 **Q. EARLIER IN THIS TESTIMONY YOU DISCUSS THAT CERTAIN DATA**
6 **RELATED COSTS ARE EXCLUDED FROM THOSE PER MINUTE OF**
7 **USE COSTS ONE COMMUNICATIONS SEEKS TO RECOVER IN ITS**
8 **SWITCHED ACCESS CHARGES. HAVE YOU TAKEN STEPS TO**
9 **REMOVE DATA RELATED COSTS WITHIN THIS MODULE?**

10 A. Yes. As I described earlier, QSI recognizes that One Communications provides
11 both voice and data services to its end user customers via the use of its shared
12 Massachusetts network, as such, an allocation of certain costs to data related
13 services is reasonable, particularly given that NUCA's per-minute of use output is
14 intended to reflect costs attributable to voice services and to form the basis for
15 switched access charges. The table below demonstrates how voice related costs
16 are retained within the study and, similarly, how data related costs are removed.

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Table 4: Massachusetts Transport Costs

***** BEGIN CONFIDENTIAL**

END CONFIDENTIAL ***

Q. IS THE ELECTRONIC VERSION OF THIS ANALYSIS UNLOCKED AND FULLY AUDITABLE?

A. Yes. In addition to the paper version of this workbook presented within Confidential Exhibit JDW-2 beginning at page 220, an electronic file entitled “*One Communications NUCA – Transport Module MA.xls*” is available for review. It is unlocked and fully auditable.

H. Transport Termination

Q. IS THE TRANSPORT TERMINATION MODULE AN EXPENSE DRIVEN MODULE OR AN INVESTMENT DRIVEN MODULE?

A. Given that One Communications owns the vast majority of the transport electronics which comprise its backbone network, NUCA’s *Transport*

1 *Termination Module* is an investment driven module. As such, it relies upon
2 equipment inventories and prices to derive investments. Thereafter, investments
3 are converted to monthly costs through the application of annual cost factors as
4 discussed earlier in this testimony and that of Mr. Fischer.

5 **Q. PLEASE PROVIDE AN OVERVIEW OF THE *TRANSPORT***
6 ***TERMINATION MODULE IDENTIFIED IN FIGURE 1.***

7 A. This module is designed to estimate the forward-looking costs associated with
8 terminating traffic within One Communications' switching centers and/or
9 collocation arrangements. The **Monthly Costs** tab provides for the application of
10 investment and annual cost factors to equipment investments in order to derive
11 monthly capital related costs. These costs are fed into the **Results Module** where
12 they are merged with monthly demand to derive per-minute of use costs.

13 Costs developed within this module are associated with transport electronics,
14 cross connect systems and devices, multiplexers, Dense Wavelength Division
15 Multiplexing (“DWDM”) equipment, and echo cancellation equipment. The
16 **Transport Elec FDP, Echo Cancellation, G6, DWDM, and DACS MUX DSX**
17 tabs identify equipment inventories and investment amounts.

18 The *Transport Termination Module* is included in Confidential Exhibit JDW-2
19 beginning at page 225. The native Microsoft Excel® workbook is entitled “*One*
20 *Communications NUCA – Transport Termination Module MA.xls*” and it includes
21 14 interlinked worksheets.

1 **Q. WHICH EQUIPMENT REPRESENTS THE MAJORITY OF**
2 **INVESTMENT IN THIS MODULE?**

3 A. OC-48 and OC-192 fiber nodes, or fiber multiplexers, drive the bulk of the
4 investment and, therefore, monthly costs associated with the *Transport*
5 *Termination Module*. Costs associated with DWDM equipment also comprise a
6 notable portion of the overall investment.

7 **Q. WHERE DO THE FIBER MULTIPLEXER PRICES USED WITHIN THIS**
8 **MODULE COME FROM?**

9 A. Ultimately, as noted in the *NED* to which this module is linked, pricing for these
10 components is taken from an August 2009 pricing sheet provided by One
11 Communications' preferred vendor for this equipment, Alcatel-Lucent.

12 **Q. DOES THIS MODULE REMOVE COSTS ASSOCIATED WITH DATA**
13 **SERVICES FROM VOICE COST CALCULATIONS?**

14 A. Yes, it does. This can be seen, for example, with respect to fiber nodes and fiber
15 distribution panels in the **Transport Elec FDP** tab within this module. I have
16 provided an excerpt of these calculations for illustrative purposes in Table 4,
17 below.

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Table 5: Voice vs. Data Transport Costs

***** BEGIN CONFIDENTIAL**

END CONFIDENTIAL ***

Not all equipment in this module, however, is treated in this manner. For example, the echo cancellation equipment included in this module is not allocated between voice and data services. Data services do use this equipment and, as such, an allocation would not be appropriate.

I. Traffic

Q. PLEASE PROVIDE AN OVERVIEW OF THE TRAFFIC MODULE AND ITS ROLE IN GENERATING PER UNIT COSTS WITHIN THE RESULTS MODULE.

A. The *Traffic Module* develops total Massachusetts demand, i.e., the total number of minutes of use (traffic) expected to pass through One Communications' switched voice network in Massachusetts in the near future (during the time period for which total cost is modeled). Total monthly costs (estimated in other modules of NUCA as described above) are divided by the corresponding total monthly traffic to arrive at an average, total cost per-minute, which is the ultimate result of the NUCA model.

1 **Q. PLEASE EXPLAIN IN DETAIL HOW TOTAL DEMAND (TRAFFIC)**
2 **WAS ESTIMATED.**

3 A. As discussed above, total demand includes all switched voice minutes – not only
4 intrastate switched access, but also interstate switched access traffic, One
5 Communication’s own local and long distance traffic, as well as local traffic
6 exchanged with other wireline and wireless carriers (i.e., reciprocal compensation
7 traffic). Some of this usage may constitute billable minutes, while some usage is
8 non-billable. Engineering traffic data – trunk usage reports – capture all traffic
9 that passes through One Communications’ network. For example, switches are
10 connected to the rest of the telecommunications network via trunks, and switch
11 usage is measured at trunks connected to that switch. Trunk usage reports served
12 as the main data source for NUCA’s *Traffic Module*.

13 **Q. WHAT SWITCHES WERE INCLUDED IN THE *TRAFFIC MODULE*?**

14 A. Seven switches located in Massachusetts serve One Communications end-users in
15 Massachusetts. Traffic volumes at all seven switches were included in the *Traffic*
16 *Module*. Some of these switches perform not only local, but also long-distance
17 switching functions. By “long-distance switching functions” I mean switching
18 that in a traditional separated ILEC/IXC market structure would be performed by
19 an IXC switch, rather than an ILEC switch. Both local and long-distance usage is
20 included in the traffic study and therefore, captured in the total demand figures.

1 **Q. WHAT IS THE IMPACT OF INCLUDING TRAFFIC ASSOCIATED**
2 **WITH THE LONG-DISTANCE SIDE OF THE NETWORK ON THE**
3 **RESULTING COST ESTIMATES?**

4 A. The impact is lower per-minute cost estimates. Inclusion of traffic associated
5 with long-distance functions of the network properly reflects economies of scale
6 and scope realized by One Communications. These economies stem, for example,
7 from the fact that switch cost, on a per unit basis, decrease with switch size. In
8 addition, because long-distance trunks in One Communications network tend to
9 have higher usage compared to local trunks, the per-minute cost of a combined
10 “local and long-distance” network is likely lower than the per-minute cost of all-
11 local network (or an “all switched access” network).

12 **Q. WHAT WAS THE TIME PERIOD FOR WHICH ACTUAL TRUNK**
13 **USAGE WAS COLLECTED?**

14 A. Monthly trunk usage (by switch and trunk group) was collected for 12 months
15 ending in February 2010, which was the most recent period for which traffic data
16 were available at the time the study began. It did not make sense to collect older
17 trunk usage data because One Communications had been rearranging trunk groups
18 and moving traffic from one switch to another, and as a result, older data would
19 not be representative of the future. At the same time it was necessary to have a
20 full 12 months of data to neutralize seasonal fluctuations in the underlying traffic.

21 **Q. HOW DID NUCA’S TRAFFIC STUDY UTILIZE ACTUAL USAGE DATA**
22 **TO FORECAST FUTURE USAGE?**

1 A. For each switch, NUCA’s traffic study summarized the monthly trunk-group level
2 data into monthly totals by switch. Then it converted monthly totals into a
3 monthly “per day” measure to remove traffic fluctuations stemming from the
4 difference in the number of days in different months. The remaining fluctuations
5 in the monthly per day traffic at each switch were examined to identify changes in
6 usage that may have been driven by factors other than seasonal (month-to-month)
7 dynamics.

8 For the majority of Massachusetts switches monthly per day usage was relatively
9 stable over the observed 12 months,¹⁹ so that the actual historical 12-month data
10 were the best available estimate for future usage. For these switches, the *Traffic*
11 *Module* forecasted annual demand as a 12-month average of historical per day
12 data times the number of days in a year. For several switches monthly per day
13 usage dropped significantly in the last several months of the observed historical
14 period. One Communications’ Manager of Switch Engineering explained to QSI
15 that the observed decreases in traffic were associated with network re-
16 arrangements in which traffic was moved to another switch, or product
17 retirements. In these cases a shorter, more recent time period was a more
18 appropriate basis for the forecast rather than the full 12-month period. For these
19 switches, the *Traffic Module* forecasted annual demand by using the most recent 6
20 months of actual data.

¹⁹ A chart contained in Tab “All Data MOU by CLLI” of the *Traffic Module* depicts monthly dynamics of usage by switch.

1 **Q. WAS IT NECESSARY TO MAKE ANY ADJUSTMENTS TO ACTUAL**
2 **TRUNK USAGE DATA BEFORE THE FORECAST OF TOTAL DEMAND**
3 **WAS GENERATED?**

4 A. Yes. Several adjustments were necessary to “translate” usage at the trunks into
5 switch usage and usage of other network segments in Massachusetts. The first
6 adjustment is related to double-counting that takes place when a call comes to a
7 switch on one trunk, and leaves the switch on another trunk. The second
8 adjustment is to capture intraswitch²⁰ usage. The third adjustment is related to the
9 fact that One Communications’ Massachusetts switches serve end-users not only
10 in Massachusetts, but also in adjacent states. I discuss these three adjustments in
11 detail below.

12 **Q. PLEASE DISCUSS THE FIRST ADJUSTMENT, WHICH IS TO REMOVE**
13 **DOUBLE-COUNTING.**

14 A. If a call comes to a switch on one trunk, and leaves the switch on another trunk,
15 and usage is measured at both trunks, there will be two records for the same
16 switching event. In the One Communications network (as is typical for CLEC
17 network architectures generally) each switch is connected to other switches, other
18 carriers and end-users via trunk-side (rather than line-side) connections. In other
19 words, every call, including calls to and from One Communications’ end-users,
20 comes to One Communications’ switch on a trunk, and leaves that switch on

²⁰ Intraswitch usage represents calls by and between customers who connect to the public switch network via the same telecommunications switch.

1 another trunk. Therefore, if, as an example, a call with a duration of one minute
2 comes to the switch from a One Communications end-user and then leaves the
3 switch to be handed off to an IXC, the same switching minute is recorded twice –
4 one minute will be recorded on a incoming (“end-user”) trunk and another minute
5 will be recorded on the outgoing (“carrier”) trunk. An often used method of
6 avoiding this type of double-counting is to collect usage only on carrier trunks,
7 and leave out end-user trunks. This method (i.e. leaving out end-user trunks) was
8 employed in the NUCA traffic study.

9 However, leaving out end-user trunks does not eliminate all cases of double-
10 counting. Specifically, some calls may be coming to the switch on a carrier trunk
11 and leaving it on another carrier trunk. This situation happens when a switch
12 serves as an intermediate point of switching (performs “tandem,” “transit” or “toll
13 switch” functions). These cases of double-counting were removed with the help
14 of One Communications’ Manager of Switch Engineering who identified trunk
15 groups associated with duplicative records, such as trunk groups connecting two
16 switches. In total, approximately [*** BEGIN CONFIDENTIAL END
17 CONFIDENTIAL ***] of actual usage on carrier trunks associated with
18 Massachusetts switches were removed as duplicative.

19 **Q. PLEASE DISCUSS THE SECOND ADJUSTMENT, WHICH IS TO**
20 **CAPTURE INTRASWITCH USAGE.**

21 A. As explained in the previous question and answer, trunk usage was collected from
22 carrier trunks, and end-user trunks were excluded in order to avoid double-

1 counting. This method captures interswitch usage, but not intraswitch usage
2 because an intraswitch call comes into and leaves the switch on end-user trunks.
3 Intraswitch usage in the *Traffic Module* was taken from another source -- One
4 Communications' special study of intraswitch usage based on billing records.
5 The *Traffic Module* sums up carrier trunk (interswitch) usage and intraswitch
6 usage to produce total actual usage data. The resulting actual usage data is the
7 basis for the above described traffic forecast.

8 **Q. PLEASE DISCUSS THE THIRD ADJUSTMENT, WHICH IS TO**
9 **ACCOUNT FOR THE FACT THAT ONE COMMUNICATIONS'**
10 **MASSACHUSETTS SWITCHES SERVE END-USERS NOT ONLY IN**
11 **MASSACHUSETTS, BUT ALSO IN SEVERAL ADJACENT STATES.**

12 A. Massachusetts switches serve end-users in Massachusetts and adjacent states,
13 such as Connecticut. Similarly, Massachusetts switches are connected to One
14 Communications' collocations (aggregation nodes) in Massachusetts, as well as
15 several adjacent states. Therefore, traffic observed at Massachusetts switches
16 comes not only from Massachusetts end-users and collocations, but also from
17 "out-of-state" end-users and collocations. At the same time, the bulk of the costs
18 developed within NUCA are associated with Massachusetts end-users. In other
19 words, traffic at Massachusetts aggregation nodes, as an example, would be less
20 than traffic at Massachusetts switches. To properly match the numerator of the
21 per-minute aggregation cost (total cost at Massachusetts aggregation nodes), with
22 its denominator (total usage at Massachusetts aggregation nodes), traffic

1 associated with Massachusetts collocations needs to be identified within total
2 usage at Massachusetts switches.

3 The *Traffic Module* estimates the “portion of the traffic at Massachusetts switches
4 associated with Massachusetts end-users and collocations” by assuming that the
5 geographical distribution of traffic is the same as the geographical distribution of
6 lines (the percentage of Massachusetts lines out of all lines served by
7 Massachusetts switches). This percentage is applied to the forecasted minutes of
8 use at the switch to produce the forecasted minutes of use for loop, aggregation,
9 transport and transport termination networks in Massachusetts. The resulting
10 adjusted traffic volumes are used as the denominator for the per-minute loop,
11 aggregation, transport and transport termination cost. At the same time the
12 unadjusted number of forecasted minutes of use at the switch is used as a
13 denominator of the per-minute switch and signaling cost. This adjustment
14 explains why the minutes of use used in the denominator for switching in the
15 **Results Module** is larger than the denominator for other segments of the network
16 - e.g., Aggregation). No adjustment is necessary for switching and signaling cost
17 because total cost for these network segments calculated in NUCA represent the
18 cost of serving both Massachusetts and out-of-state traffic.

19 **Q. IS THE ELECTRONIC VERSION OF THIS ANALYSIS UNLOCKED**
20 **AND FULLY AUDITABLE?**

1 A. Yes, the electronic version is entitled “*One Communications NUCA – Traffic*
2 *Module MA.xlsx*” and it is unlocked and fully auditable. The paper version of this
3 module begins at page 204 of Confidential Exhibit JDW-2.

4

5 **III. NUCA RESULTS VERSUS CAP**

6 **Q. HOW DOES THE COST-BASED ACCESS RATE DEVELOPED IN THE**
7 **NUCA MODEL COMPARE WITH THE CAP IMPLEMENTED ON JUNE**
8 **22, 2010 AND ONE COMMUNICATIONS’ PREVIOUSLY EFFECTIVE**
9 **TARIFF RATES?**

10 A. As the table below demonstrates, One Communications’ access rate produced by
11 the NUCA model is significantly higher than the intrastate Verizon Massachusetts
12 rate that serves as the cap on One Communications’ intrastate access rates.²¹ The
13 NUCA rate is also lower than One Communications’ tariff rates prior to the
14 effective date of the rate cap on June 22, 2010.

15

²¹ D.T.C. CLEC Access Rate Order, at 30. The effective date of the rate cap was one year after the order date of June 22, 2009.

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Table 6: Revenue Impact of Access Rate Change

***** BEGIN CONFIDENTIAL**

END CONFIDENTIAL ***

Based on actual 2009 intrastate access minutes of use in the table above, One Communications' projected annual intrastate access revenue under the rate cap would be approximately 93% less than the revenue One Communications would earn using the tariff rates in effect prior to the rate cap implementation date on June 22, 2010. Setting One Communications' intrastate access rate at the cost-based rate produced by the NUCA cost model will also result in a revenue reduction, but at a more modest 58% decline versus the 93% decline noted above.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF TELECOMMUNICATIONS AND CABLE

Petition of Choice One Communications of Massachusetts)
Inc., Conversent Communications of Massachusetts Inc.,)
CTC Communications Corp. and Lightship Telecom LLC) **D.T.C. 10 - 2**
For Exemption from Price Cap on Intrastate)
Switched Access Rates as Established in D.T.C. 07-9)

Exhibit JDW-1

James D. Webber
Senior Vice President
QSI Consulting, Inc.

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JWebber@QSIconsulting.com



Biography

Mr. Webber has 18 years of experience with public utility regulation and litigation. Prior to joining QSI, he served in a number of management positions within the telecommunications industry including, for example, as the Director of External Affairs for ATX/CoreComm and as a District Manager for AT&T's Law and Government Affairs organization. Mr. Webber has provided consulting services to a number of the nation's most notable telecommunications carriers including, for example, AT&T, MCI, One Communications, PAETEC and XO. He has been responsible for business case modeling, cost of service analyses, operational process improvement, vendor management, regulatory affairs, and tariff management.

In addition to his experience within the telecommunications industry, he served at the Illinois Department of Energy and Natural Resource, where he was involved with energy use and DSM forecasting, pollution mitigation strategies and other environmental issues.

Mr. Webber has been called upon to provide expert testimony related to billing disputes, cost of service analyses, economic damages, interconnection, pricing and policy issues before state and federal regulatory agencies and courts of varying jurisdictions throughout the United States.



Educational Background

Master of Science, Economics

Illinois State University
Normal, Illinois.
1993

Bachelor of Science, Economics

Illinois State University
Normal, Illinois.
1990

Professional Experience

QSI Consulting, Inc.

2007- Present
Senior Vice President

2003 - 2007
Senior Consultant

ATX/CoreComm

2000 - 2003
Director External Affairs

AT&T

1999 - 2000
District Manager
Local Services and Access Management

1997 - 1999
District Manager
Law and Government Affairs

Competitive Strategies Group, LTD

1996 - 1997
Senior Consultant

Illinois Commerce Commission

1996
Manager, Rates Section

1994 - 1996
Economic Analyst, Rate Section Telco Division

Illinois DENR

1992 - 1994
Research Project Coordinator

Expert Testimony and Expert Report Profile

The information below represents Mr. Webber's best effort to identify the proceedings in which he has prepared written testimony or an expert report and/or has appeared for live testimony.

Federal Communications Commission

File No. EB-08-MDIC-0034

*In the matter of Saturn Telecommunications Services, Inc. - V- AT&T
Declaration on behalf of Saturn Telecommunications Services, Inc.
(2009-2010).*

Federal Communications Commission

GN Docket Nos. 09-47, 09-51, 09-137

*Comments Sought on Broadband Study Conducted by the Berkman Center for Internet and Society, NBP Public
Notice #13
On behalf of Covad Communications Company
(2009-2010).*

Federal Communications Commission

CC Docket No. 01-92

*In the Matter of Developing a Unified Intercarrier Compensation Regime
Declaration on behalf of Nuvox Communications.
(2008-2009).*

Federal Communications Commission

WC Docket No. 07-97

*In the Matter of Petitions of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Denver,
Minneapolis-St. Paul, Phoenix, and Seattle Metropolitan Statistical Areas
On behalf of PAETEC Communications
(2008)*

Federal Communications Commission

File No. EB-01-MD-017

*In the matter of CoreComm Communications, Inc. and Z-Tel Communications, Inc., Complainants v. SBC
Communications Inc., Southwestern Bell Telephone Company, Pacific Bell Telephone Company, Nevada Bell
Telephone Company, The Southern New England Telephone Company, Illinois Bell Telephone Company, Indiana
Bell Telephone Company, Inc., Michigan Bell Telephone Company, The Ohio Bell Telephone Company, and
Wisconsin Bell, Inc.
On behalf of CoreComm Communications, Inc.*

Alabama Public Service Commission

Docket No. 29054

*In re: Implementation of the Federal Communications Commission's Triennial Review Order (Phase II – Local
Circuit Switching)
On behalf of MCImetro Access Transmission Services LLC and MCI WorldCom Communications.*

Arizona Corporation Commission

Docket No. T-01051B-06-0257 and No. T-03406A-06-0257

In the Matter of the Complaint of Eschelon of Arizona, Inc. against Qwest Corporation.

James D. Webber

On behalf of Eschelon of Arizona, Inc.
(2006).

Florida Public Service Commission Docket No.030851-TP

In re: Implementation of requirements arising from Federal Communications Commission's triennial UNE review: Local Circuit Switching for Mass Market Customers

On behalf of MCImetro Access Transmission Services LLC and MCI WorldCom Communications, Inc.

Georgia Public Service Commission Docket No. 17749-U

In re: FCC's Triennial Review Order Regarding the Impairment for Local Switching for Mass Market Customers

On behalf of MCImetro Access Transmission Services, LLC MCI WORLDCOM Communications, Inc.

Illinois Commerce Commission ICC Docket No. 09-0315

Illinois Commerce Commission On Its Own Motion vs McleodUSA Telecommunications Services, Inc. d/b/a PAETEC Business Services: Investigation into Whether Intrastate Access Charges of McleodUSA Telecommunications Service, Inc. d/b/a PAETEC Business Services are Just and Reasonable.

On behalf of McleodUSA Telecommunications Service, Inc. d/b/a PAETEC Business Services.
(2009-2010).

Illinois Commerce Commission ICC Docket No. 04-0461

Illinois Bell Telephone Company Petition Regarding Compliance with the Requirements of Section 13505.1 of the Public Utilities Act

On behalf of AT&T Communications of Illinois, Inc. CIMCO Communications, Inc., Forte Communications, Inc., McLeodUSA Telecommunications Services, Inc., MPower Communications Corp., TCG Chicago, TCG Illinois, XO Illinois, Inc.

Illinois Commerce Commission ICC Docket No. 00-0700

Illinois Commerce Commission on its own motion -vs- Illinois Bell Telephone Company. Investigation into tariff providing unbundled local switching with shared transport

On behalf of CoreComm Illinois, Inc.

Illinois Commerce Commission ICC Docket Nos. 97-0516, 97-0601, and 96-0602

Illinois Commerce Commission on its own motion -vs- Illinois Bell Telephone Company; et al. Investigation into non-cost based access charge rate elements in the intrastate access charges of incumbent local exchange carriers in Illinois. Illinois Commerce Commission on its own motion Investigation into implicit universal service subsidies in intrastate access charges and to investigate how these subsidies should be treated in the future

On behalf of AT&T Communications of Illinois, Inc.

Illinois Commerce Commission ICC Docket Nos. 96-0486 and 96-0596

Illinois Commerce Commission on its own motion Investigation into forward looking cost studies and rates of Ameritech Illinois for interconnection, network elements, transport and termination of traffic. Illinois Bell Telephone Company Proposed rates, terms and conditions for unbundled network elements

On behalf of AT&T Communications of Illinois, Inc.

James D. Webber

Illinois Commerce Commission

ICC Docket Nos. 95-0458 and 95-0531

AT&T Communications of Illinois, Inc. Petition for a total local exchange wholesale service tariff from Illinois Bell Telephone Company d/b/a Ameritech Illinois and Central Telephone Company Pursuant to section 13-505.5 of the Illinois Public Utilities Act.

LDDS Communications, Inc. d/b/a LDDS Metromedia Communications. Petition for a total wholesale network service tariff from Illinois Bell Telephone Company d/b/a Ameritech Illinois and Central Telephone Company pursuant to Section 13-505.5 of the Illinois Public Utilities Act

On behalf of the Staff of the Illinois Commerce Commission.

Illinois Commerce Commission

ICC Docket Nos. 95-0201 and 95-0202

Illinois Bell Telephone company proposed establishment of separate rate elements for single line versus multiline business access line customers. Illinois Bell Telephone company proposed establishment of separate rate elements for directory assistance to business sand residence customers

On behalf of the Staff of the Illinois Commerce Commission.

Illinois Commerce Commission

ICC Docket No. 94-0048

IntraLATA Presubscription Rule Making

On behalf of the Staff of the Illinois Commerce Commission.

Illinois Commerce Commission

ICC Docket Nos. 94-0096, 94-0117, and 94-0146

Proposed Introduction of a Trial of Ameritech's Customers First Plan in Illinois, et al.

On behalf of the Staff of the Illinois Commerce Commission.

Indiana Regulatory Utility Commission

IRUC Cause No. 40571-INT-03

AT&T Communications of Indiana, Inc. TCG Indianapolis petition for arbitration of interconnection rates terms and conditions and related arrangements with Indiana Bell Telephone Company, Incorporated d/b/a Ameritech Indiana pursuant to Section 252(b) of the Telecommunications Act of 1996

On behalf of AT&T Communications of Indiana, Inc and TCG Indianapolis.

Indiana Regulatory Utility Commission

IRUC Cause No. 40785

In the matter of the investigation on the Commission's own motion into any and all matters relating to access charge reform and universal service reform including, but not limited to high cost or universal service funding mechanisms relative to telephone and telecommunications services within the state of Indiana pursuant to IC 8-1-2-51, 58, 59, 69; 8-1-2.6 ET. SEC. and other related state statutes, as well as the Federal Telecommunications Act of 1996 (47 U.S.C. Sec. 151, ET. SEC.)

On behalf of AT&T Communications of Indiana, Inc.

Indiana Regulatory Utility Commission

IURC Cause No. 40611

In the matter of the Commission investigation and generic proceeding on Ameritech Indiana's rates for interconnection, service, unbundled elements, and transport and termination under the Telecommunications Act of 1996 and related Indiana statutes

On behalf of AT&T Communications of Indiana, Inc.

Ingham County Circuit Court

Case No. 04-689-CK

James D. Webber

T&S Distributors, LLC Custom Software, Inc., Arq, Inc., Absolute Internet, Inc., CAC Medianet, Inc., ACD Telecom, Inc., and Telnet Worldwide, Inc. V. Michigan Bell Telephone Company, d/b/a SBC Michigan.
On behalf of ACD Telecom, Inc. and Telnet Worldwide, Inc.
(2005-2009).

JAMS Reference No.1340005643

Case No. 05-C-6250

Cingular Wireless, LLC, a Delaware Limited Liability Company V. PlatinumTel Communications, LLC, a Delaware Limited Liability Company
On behalf of *PlatinumTel Communications, LLC.*
(2005-2006).

Kent County Circuit Court

Case No. 04-07026-CH.

LUCRE, INC. Plaintiff / Counter-Defendant V MICHIGAN BELL TELEPHONE COMPANY, a Michigan Corporation, d/b/a SBC Michigan and f/k/a Ameritech Michigan, Defendant / Counter-Plaintiff
On behalf of Lucre, Inc.

Kentucky Public Service Commission

KPSC Docket No. 2003-00379

In the Matter of: Review of Federal Communications Commission's Triennial Review Order Regarding Unbundling Requirements For Individual Network Elements
On behalf of MCImetro Access Transmission Services, LLC MCI WORLDCOM Communications, Inc.

Louisiana Public Service Commission

LPSC Docket No. U-27571

In Re: Implementation of the Requirements Arising from the Federal Communications Commission's Triennial Review Order, Order 03-36, Unbundled Local Circuit Switching for Mass Market Customers and Establishment of a Batch Cut Migration Process
On behalf of MCImetro Access Transmission Services, LLC MCI WORLDCOM Communications, Inc.

Maryland Public Service Commission

MPSC Case No. 9067

In the matter of the Formal Complaint of New Frontiers Telecommunications, Inc. Vs. Verizon Maryland, Inc.
On behalf of New Frontiers Telecommunications, Inc.
(2007).

Michigan Public Service Commission

MPSC Case No. U-14384

In the matter of the complaint and application for resolution of SBC Michigan against LUCRE, INC., for refusal to pay certain charges lawfully assess and for other violations of duties under law
On behalf of Lure, Inc.

Michigan Public Service Commission

MPSC Case No. U-13977 and U-14175

In the matter of the application of AT&T COMMUNICATIONS OF MICHIGAN, INC. for Commission Determination of Switched Access Rates Pursuant to MTA Section 310(2)
On behalf of AT&T Communications of Michigan, Inc.

Michigan Public Service Commission

MPSC Case No. U-13531

In the matter, on the Commission's own motion, to review the costs of telecommunications services

James D. Webber

provided by SBC Ameritech Michigan

On behalf of MCI metro Access Transmission Services, LLC MCI WORLDCOM Communications, Inc and Brooks Fiber Communications of Michigan, Inc.

Michigan Public Service Commission

MPSC Case No. U-13796

In the matter, on the Commission's own motion, to facilitate the implementation of the Federal Communication Commission's Triennial Review determinations in Michigan

On behalf of Sage Telecom, Inc.

Michigan Public Service Commission

MPSC Case No. U-12622

In the Matter of the application of Ameritech Michigan for approval of shared transport cost study and resolution of disputed issues related to shared transport

On behalf of CoreComm Michigan, Inc.

Michigan Public Service Commission

MPSC Case No. U-12465

In the matter of the application of AT&T Communications of Michigan, Inc., and TCG Detroit for arbitration of interconnection rates, terms and conditions and related arrangements with Ameritech Michigan Pursuant to 47 USC 252(b)

On behalf of AT&T Communications of Michigan, Inc., and TCG Detroit.

Michigan Public Service Commission

MPSC Case No. U-11831

In the matter, on the Commission's own motion, to consider the total long run service incremental costs for all access, toll, and local exchange services provided by Ameritech Michigan

On behalf of AT&T Communications of Michigan, Inc. and TCD Detroit.

Michigan Public Service Commission

MPSC Case No. U-11743

In the matter of the application and complaint of MCI TELECOMMUNICATIONS CORPORATION against MICHIGAN BELL TELEPHONE COMPANY, d/b/a AMERITECH MICHIGAN, seeking (i) a 55% discount on intrastate switched access service where intraLATA dialing parity is not provided and (ii) an order requiring implementation of intraLATA dialing parity on an expedited basis now that July 1, 1997 has passed.

Michigan Public Service Commission

MPSC Case No. U-11757

In the matter, on the Commission's own motion, to determine procedures to ensure that an end user of a telecommunications provider is not switched to another provider without the authorization of the end user.

Michigan Public Service Commission

MPSC Case No. U-11448

In the matter of the application of the Michigan Exchange Carriers Association, Inc., for approval of a joint total service long run incremental cost study

On behalf of AT&T Communications of Michigan, Inc. and MCI Telecommunications Corporation.

Michigan Public Service Commission

MPSC Case No. U-11280

In the matter, on the Commission's own motion, to consider the total service long run incremental costs and to determine the prices of unbundled network elements, interconnection services, resold services, and basic local exchange services for Ameritech Michigan

James D. Webber

On behalf of AT&T Communications of Michigan, Inc.

Minnesota Public Utilities Commission

Docket No. P-5340, 421,IC-06-768

In the Matter of the Petition of Eschelon Telecom, Inc. for Arbitration with Qwest Corporation, Pursuant to 47 U.S.C Section 252 of the Federal Telecommunications Act of 1996

On behalf of Eschelon Telecom, Inc.
(2006).

Minnesota Public Utilities Commission

Docket No. P-5535, 421/M-08-952

In the Matter of the Petition of Charter Fiberlink, LLC for Arbitration of an Interconnection Agreement with Qwest Corporation Pursuant to 47 U.S.C. § 252(b)

On behalf of Charter Fiberlink, LLC.
(2008-2009).

Mississippi Public Service Commission

MPSC 2003-AD-0714

IN RE: generic proceeding to review the federal communications commission's triennial review order

On behalf of MCI metro Access Transmission Services, LLC MCI WORLDCOM Communications, Inc.

Missouri Public Service Commission

Case No. TO-2009-0037

In the Matter of the Petition of Charter Fiberlink-Missouri, LLC for Arbitration of an Interconnection Agreement Between CenturyTel of Missouri, LLC and Charter Fiberlink-Missouri, LLC

On behalf of Charter Fiberlink Missouri, LLC.
(2008).

New Jersey Board of Public Utilities

NBPU Docket No. TX08090830

In the Matter of: The Board's Investigation and Review of Local Exchange Carrier Intrastate Exchange Access Rates

On behalf One Communications, PAETEC Communications, Inc., and US LEC of Pennsylvania, LC.
(2009).

North Carolina Utilities Commission

NCUC Docket No. P-100, Sub 133q

In the Matter of: Triennial Review – UNE-P Address Implementation of Unbundling Docket No. P-100, Sub 133q Requirements of R-51.319 in Determining Principally the Continued Availability of Unbundled Local Switching for the Mass-Market

On behalf of MCI metro Access Transmission Services LLC and MCI WorldCom Communications, Inc.

Public Utility Commission of Ohio

PUCO Case No. 02-579-TP-CCS

In the matter of the Complaint and motion of CoreComm Newco, Inc., Complainant, V. Ameritech Ohio, Respondent

On behalf of CoreComm Newco, Inc.

Public Utility Commission of Ohio

PUCO Case No. 00-942-TP-COI

In the matter of the further investigation into Ameritech Ohio's entry into in-region interLATA service under section 271 of the Telecommunications Act of 1996

James D. Webber

On behalf of CoreComm Newco, Inc.

**Public Utility Commission of Ohio
PUCO Case No. 00-1188-TP-ARB**

In the matter of the application of AT&T Communications of Ohio Inc. and TCG Ohio for arbitration of interconnection rates, terms and conditions and related arrangements with SBC Ohio

On behalf of AT&T Communications of Ohio, Inc.

**Public Utility Commission of Ohio
PUCO Case No. 96-899-TP-ALT**

In the matter of the application of Cincinnati Bell Telephone Company for approval of a retail pricing plan which may result in future rate increases and for a new alternative regulation plan

On behalf of AT&T Communications of Ohio, Inc.

**Public Utility Commission of Ohio
PUCO Case No. 96-366-TP-ALT and Case No. 96-532-TP-UNC**

In the matter of the complaint of AT&T Communications of Ohio, Inc., Complainant, V. Ameritech Ohio, Respondent, In the matter of the implementation of substitute Senate Bill 306 or substitute House Bill 734 of the 121st General Assembly

On behalf of AT&T Communications of Ohio, Inc.

**Public Utility Commission of Ohio
PUCO Case No. 96-922-TP-UNC**

In the matter of the review of Ameritech Ohio's Economic Costs for Interconnection, Unbundled Network Elements, and Reciprocal Compensation for Transport and Terminations of Local Telecommunications Traffic

On behalf of AT&T Communications of Ohio, Inc.

**Public Utility Commission of Ohio
PUCO Case No. 02-1280-TP-UNC**

In the Matter of the Review of SBC Ohio's TELRIC Costs of Unbundled Network Elements

On behalf of CoreComm Newco, Inc., LDMI Telecommunications, Inc. and XO Ohio, Inc.

**Public Utility Commission of Ohio
PUCO Case No. 07-0589-GA-AIR**

Report of Conclusions and Recommendations on the Financial Audit of Duke Energy Ohio, Inc. In Regard to Case No. 07-0589-GA-AI.

Report to the Staff of the PUCO.
(2007).

**Public Utility Commission of Ohio
PUCO Case No. 07-0829-GA-AIR**

Report of Conclusions and Recommendations on the Financial Audit of the East Ohio Gas Company d/b/a Dominion East Ohio In Regard to Case No. 07-0829-GA-AIR.

Report to the Staff of the PUCO.
(2007).

**Public Service Commission of South Carolina
Docket No. 2003-326-C**

In Re: Analysis of Continued Availability of Unbundled Local Switching for Mass Market Customers Pursuant to the Federal Communications Commission's Triennial Review Order

On behalf of MCImetro Access Transmission Services LLC and MCI WorldCom Communications, Inc.

James D. Webber

Public Utility Commission of Texas

Case No. 35869

Petition of Charter Fiberlink TX-CCO, LLC for Arbitration of an Interconnection Agreement with CenturyTel of Lake Dallas, Inc. Pursuant to Section 252 of the Federal Communications Act of 1934, as Amended, and Applicable State Laws.

On behalf of Charter Fiberlink TX-CCO, LLC.
(2008).

Tennessee Regulatory Authority

TRA Docket No. 03-00491

Implementation of the Federal Communications Commission's Triennial Review Order – 9 Month Proceeding – Switching

On behalf of MCImetro Access Transmission Services, LLC and Brooks Fiber of Tennessee, Inc.

Tennessee Regulatory Authority

TRA Docket No. 03-00526

Implementation of the Federal Communications Commission's Triennial Review Order – 9 Month Proceeding – Hot Cuts

On behalf of MCImetro Access Transmission Services, LLC and Brooks Fiber of Tennessee, Inc.

Washington Utilities and Transportation Commission

WUTC Docket No. UT-063061

In the Matter of the Petition of Qwest Corporation for Arbitration with Eschelon Telecom, Inc. Pursuant to 47 U.S.C. Section 252 of the Federal Telecommunications Act of 1996

On behalf of Eschelon Telecom, Inc.
(2006)

Washington Utilities and Transportation Commission

WUTC Docket No. UT-083041

In the Matter of the Petition of Qwest Corporation for Arbitration with between CHARTER FIBERLINK WA-CCVII, LLC and QWEST CORPORATION Pursuant to 47 U.S.C. Section 252

On behalf of Charter Fiberlink WA-CCVII, LLC.
(2008-2009)

Public Service Commission of Wisconsin

PSCW Docket No. 2815-TR-103

Application of CenturyTel of the Midwest-Kendall LLC Requesting Public Service Commission to Approve Alternative Regulation Plan

On behalf of AT&T Communications of Wisconsin, L.P. and TCG Milwaukee.

Public Service Commission of Wisconsin

PSCW Docket No. 05-TI-174

Generic review of carrier performance and consumer benefits under alternative regulation

On behalf of AT&T Communications of Wisconsin, Inc.

Public Service Commission of Wisconsin

PSCW Docket No. 05-MA-148 and Docket No. 05-MA-149

Charter Fiberlink, LLC Petition for Arbitration of Interconnect, Rates, Terms, Conditions, And Related Arrangements with CenturyTel Non-Rural Telephone Companies of Wisconsin Pursuant To 47 U.S.C. §252(b)

On behalf of Charter Fiberlink, LLC.
(2009)



James D. Webber

Charter Fiberlink, LLC Petition for Arbitration of Interconnect, Rates, Terms, Conditions, And Related Arrangements with CenturyTelRural Telephone Companies of Wisconsin Pursuant To 47 U.S.C. §252(b)

On behalf of Charter Fiberlink, LLC.

(2009)

U.S. District Court, Northern District of Illinois Eastern Division

Case No. 05-C-6250

Cingular Wireless, LLC, a Delaware Limited Liability Company V Omar Ahmad

On behalf of Omar Ahmad.

(2005-2006)

U.S. District Court, Western District of Wisconsin

Case No. 05-C-0266-S

In Re: Douglas-Hanson Co. Inc. Billing Dispute with AT&T Corporation

On behalf of Douglas-Hanson Co.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND CABLE

Petition of Choice One Communications of Massachusetts)
Inc., Conversent Communications of Massachusetts Inc.,)
CTC Communications Corp. and Lightship Telecom LLC) **D.T.C. 10 - 2**
For Exemption from Price Cap on Intrastate)
Switched Access Rates as Established in D.T.C. 07-9)

Exhibit JDW-2

CONFIDENTIAL VERSION