

Exhibit No.: _____
Issue: Cost Study Supporting Rates
Witness: John Balke
Type of Exhibit: Direct Testimony
Sponsoring Party: McLeodUSA
Case No.: TT-2006-0474
Date: August 25, 2006

**BEFORE
THE MISSOURI PUBLIC SERVICE COMMISSION**

In the Matter of McLeodUSA	)	
Telecommunications Services, Inc. Tariff	)	Case No. TT-2006-0474
Filing to Increase its Missouri Intrastate	)	Tariff No. JC-2006-0788
Access Rates	)	Tariff No. JC-2006-078
	)	

**DIRECT TESTIMONY
OF
JOHN BALKE**

On behalf of

McLeodUSA Telecommunications Services, Inc.

August 25, 2006

PUBLIC VERSION

Excludes Schedule HC-JB2 which includes Highly Confidential Material

I. INTRODUCTION

**Q. MR. BALKE, PLEASE STATE YOUR FULL NAME AND BUSINESS ADDRESS
FOR THE RECORD.**

A. My name is John Balke. My business address is 930 Wild Rose Court, Brookfield,
Wisconsin, 53045-5907.

**Q. WHAT IS YOUR RELATIONSHIP TO MCLEODUSA
TELECOMMUNICATIONS SERVICES, INC. ("MCLEODUSA")?**

A. I am an independent consultant working on behalf of McLeodUSA.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I received a Bachelor of Science degree in Electrical Engineering from Marquette
University in 1981.

**Q. PLEASE DESCRIBE YOUR EMPLOYMENT BACKGROUND AND INDICATE
ANY DIRECT EXPERIENCE YOU HAVE WITH ISSUES BEING ADDRESSED
IN THIS PROCEEDING.**

A. Included with this testimony as Schedule JB1 is a thorough description of my
educational background and relevant work experience. I began my career in
telecommunications at Wisconsin Telephone (ultimately Ameritech and then SBC, n/k/a
AT&T) while in a college co-op program where I gained experience in several areas of
engineering such as Long Range Planning and Transmission Engineering. After
graduation, I accepted a full-time position with Wisconsin Telephone as a capacity
planner for digital inter-office transmission facilities. After the Regional Bell Operating

25 Companies ("RBOCs") were divested from AT&T in 1984, I worked for several years for
26 AT&T managing network facility contracts. In 1986, I accepted a position in the
27 Regulatory Department of Wisconsin Telephone as a Network Cost Analyst. Within the
28 Regulatory Department I was tasked with performing cost studies for a number of
29 services including fiber inter-office facilities, DS1s, and loops. In 1989, I was the lead
30 cost analyst on a Wisconsin-specific team that was tasked with developing a loop cost
31 model for Ameritech's Wisconsin services.

32
33 In 1991, I moved to a similar position at Ameritech Services where I was ultimately
34 promoted and accepted the responsibility for loop cost models for the entire Ameritech
35 region. My primary responsibility during the next several years was the development of
36 a suite of loop cost models that would be used in all the Ameritech states. That model
37 was the Ameritech Facility Analysis Model (AFAM).

38
39 I have also spent several months in Budapest Hungary as an Ameritech representative
40 helping to develop loop costing methods and models for Ameritech's subsidiaries. I have
41 managed teams of Cost Analysts both at Ameritech and at SBC after the merger of the
42 two companies. At SBC, I had similar cost model and cost study responsibilities. For
43 example, beginning in 1996, my team was responsible for developing the UNE loop cost
44 studies in all the Ameritech states, and after the merger, in all the SBC states. I left SBC
45 in 2000 to work as a Senior Consultant on telecommunications issues at TRAIAN
46 Internet Products.

I worked as an independent Telecommunications Consultant on regulatory and cost model issues until April 2003 when I joined QSI Consulting, Inc. ("QSI") as a Senior Consultant. I continued in that position until December 2005. Since that time I have been an independent consultant.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS OR OTHER PUBLIC UTILITY COMMISSIONS?

A. I have not testified previously before the Missouri Public Service Commission ("Commission"). However, I have testified before the Illinois Commerce Commission, the Public Service Commission of Wisconsin, the Indiana Utility Regulatory Commission, the Public Utility Commission of Ohio and provided affidavits in cases before the Michigan Public Service Commission.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I will describe the Network Usage Cost Analysis ("NUCA") used by McLeodUSA to measure costs it incurs in providing the switched access services included in the tariff at issue in this proceeding. My testimony will describe the NUCA model and the results supporting McLeodUSA's proposed switched access rates. Likewise, I have attached as Highly Confidential ("HC") Schedule JB2, a copy of the NUCA results and high-level calculations supporting the Access Services rates included by McLeodUSA in P.S.C. MO No. 6. A more complete version of the model including all algorithms, inputs, assumptions and calculations in its native Excel format has been provided to both AT&T Missouri and the Commission's Staff via McLeodUSA discovery responses.

Q. DID YOU CONSTRUCT THE NUCA MODEL THAT MCLEODUSA RELIES UPON TO SUPPORT ITS PROPOSED SWITCHED ACCESS RATES?

A. Yes, in combination with a team of McLeodUSA employees and consultants I was personally involved in developing the NUCA model.

II. NUCA – METHODOLOGICAL OVERVIEW

Q. PLEASE DESCRIBE NUCA.

A. NUCA is a software-based model designed to capture the traffic-sensitive costs incurred by McLeodUSA in supporting various services relying upon its switching and transport networks. At the highest level, NUCA estimates traffic-sensitive costs specific to various McLeodUSA “network elements” (e.g., switches, fiber-optic cable, SONET equipment, etc.) and likewise maps those costs to various functions performed by its network (e.g., switching, transport, traffic aggregation, signaling, etc.). When costs related to those various functions are thereafter combined in relation to the functions comprising a given service, the result is a service-level cost analysis. For purposes of this proceeding, NUCA provides costs specific to the following McLeodUSA switched access rate elements:

Tariff Section	Element	Proposed Rate / NUCA Cost
Section 6.5(A)	Tandem Switched Termination	\$0.00169
Section 6.5(B)	Tandem Switched Facility – per mile	\$0.00076
Section 6.7(A)	Switching – Origination or Termination	\$0.02033
Section 6.7(B)	Tandem Functionality	\$0.01081
Section 6.9(A)	Local Termination Service – End Office Termination	\$0.02017
Section 6.9(B)	Local Termination Service – Tandem Termination	\$0.02262

91 **Q. ARE THE COSTS IDENTIFIED ABOVE INCREMENTAL COSTS?**

92 A. Yes. NUCA is designed to generate Total Service Long Run Incremental Costs
93 (“TSLRIC”). As the FCC recognized in its *Local Competition Order*, “economists
94 generally agree that prices based on forward looking long run incremental costs (“LRIC”)
95 give appropriate signals to producers and consumers and ensure efficient entry and
96 utilization of the telecommunications infrastructure.”¹ Because the unit of output
97 relevant to McLeodUSA’s switched access product are “services,” NUCA relies upon a
98 “Total Service” (“TS”) LRIC approach.
99

100 **Q. PLEASE DESCRIBE TSLRIC COSTS.**

101 A. The FCC once again provides a good, concise definition of TSLRIC in its *Local*
102 *Competition Order*. Though the FCC ultimately decided upon Total Element LRIC
103 (“TELRIC”) as its chosen methodology to assist in pricing unbundled network elements
104 (“UNEs”), TSLRIC and TELRIC are methodologically identical, with the only difference
105 being that TELRIC focuses on developing costs for discrete piece-parts of the network
106 (i.e., elements) while TSLRIC focuses on costs relevant to providing a finished service.
107 As such, both TELRIC and TSLRIC are described by the FCC as follows:

108
109 675. Incremental costs are the additional costs (usually expressed as a cost per
110 unit) that a firm will incur as a result of expanding the output of a good or service
111 by producing an additional quantity of the good or service. Incremental costs are
112 forward-looking in the sense that these costs are incurred as the output level
113 changes by a given increment. The costs that are considered incremental will
114 vary greatly depending on the size of the increment. For example, the
115 incremental cost of carrying an additional call from a residence that is already
116 connected to the network to its end office is virtually zero. The incremental cost

¹ See *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 15509, para. 12 (1996) (*LocalvCompetition Order*), aff’d in part and vacated in part sub nom., *Competitive Telecommunications Ass’n v. FCC*, 117 F.3d 1068 (8th Cir. 1997) (*CompTel v. FCC*) and *Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997) (*Iowa Utils. Bd. v. FCC*), ¶630.

of connecting a new residence to its end office, however, is the cost of the loop. Forward-looking incremental costs, plus a portion of the forward-looking joint and common costs, are sometimes referred to as "economic costs." Embedded or accounting costs are costs that firms incurred in the past for providing a good or service and are recorded as past operating expenses and depreciation. Due to changes in input prices and technologies, incremental costs may differ from embedded costs of that same increment. In competitive markets, the price of a good or service will tend towards its long-run incremental cost.

* * * *

677. The term "long run," in the context of "long run incremental cost," refers to a period long enough so that all of a firm's costs become variable or avoidable. The term "total service," in the context of TSLRIC, indicates that the relevant increment is the entire quantity of the service that a firm produces, rather than just a marginal increment over and above a given level of production. Depending on what services are the subject of a study, TSLRIC may be for a single service or a class of similar services. TSLRIC includes the incremental costs of dedicated facilities and operations that are used by only the service in question. TSLRIC also includes the incremental costs of shared facilities and operations that are used by that service as well as other services.²

**Q. WHAT IS THE PRACTICAL EFFECT OF RELYING UPON A TSLRIC
APPROACH TO DEVELOPING COSTS WITHIN NUCA?**

A. The practical effect of the TSLRIC methodology as it applies to NUCA can be identified as follows:

1. NUCA relies upon a "forward looking" network design, assuming that technology necessary to produce the relevant output is viewed in the "long run." This concept is effectuated most prominently by:
 - (a) assuming in each instance that the network technology to be employed, is the most efficient technology available to McLeodUSA over the foreseeable planning period, and
 - (b) assuming that all network facilities, labor and other expenses are incurred in the present timeframe, ignoring any "embedded" costs or expenses that might have been incurred to originally purchase that equipment (assuming that original purchase price is materially different than what McLeodUSA would pay today). Likewise, NUCA ignores accumulated depreciation related to McLeodUSA's existing network

² *Id.* Footnotes omitted.

158 facilities, and by assuming they are all purchased anew, captures a
159 levelized expense necessary for proper capital recovery (depreciation)
160 over the economic life of the facility.
161

- 162 2. The “increment” of study in NUCA is the entire output of a particular
163 “service.” In other words, NUCA identifies the total resources necessary to
164 produce the entire output of a product or service (e.g., switching), with those
165 total costs being unitized by evaluating a forecast of reasonable demand
166 related to that product. This approach can be contrasted with a “marginal”
167 approach wherein costs are measured solely for the next, single minute of
168 output (thereby assuming a large portion of the network constitutes “sunk
169 costs” and ignoring many common or joint costs that might accrue).
170
- 171 3. NUCA recognizes that costs accrue from the use of network facilities for
172 which investments have been made, and ongoing expenses accrue. As such,
173 to the extent any given function or service uses the same network facilities
174 (or “elements”) in a fashion that generates similar costs, NUCA attributes
175 those costs without regard to (a) the jurisdiction of the service, (b) the end
176 user who ultimately consumes the service or (c) the manner by which the
177 service may be used by its ultimate consumer. In the realm of switch-based
178 cost studies, this approach is often-times referred to as “a-minute-is-a-
179 minute,” indicating that each minute of use (regardless of who consumes that
180 minutes-worth of capacity, even McLeodUSA itself) is assigned the same
181 level of cost as long as those minutes-of-use rely upon the same network
182 facilities. Simply put, NUCA is jurisdictionally blind and consumer
183 indifferent.
184
185

186 **Q. PLEASE DESCRIBE IN MORE DETAIL THE FIRST OF THESE**
187 **CHARACTERISTICS WHICH DEFINE NUCA AS A FORWARD LOOKING**
188 **COST STUDY – I.E., THE “FORWARD LOOKING NETWORK” CONCEPT.**

189 A. In discovery, Staff asked whether NUCA assumes “the existence of the most efficient
190 network.” McLeodUSA responded as follows, providing a good deal of insight into the
191 manner by which NUCA captures efficiencies required by TSLRIC:

192 **McLeodUSA Response 0016**
193

194 NUCA applies a “forward looking” method, whereby the McLeodUSA network is
195 modeled using the most efficient technology currently employed by McLeodUSA, or
196 intended to be employed in the near future per McLeodUSA’s engineering guidelines. It
197 would be nearly impossible, and time-consuming, to state every circumstance wherein
198 NUCA’s authors undertook a forward looking assumption rather than simply modeling

the exact network architecture currently employed. That being said, those circumstances most likely to have a notable impact on NUCA's results can be summarized as follows:

- (a) NUCA assumes a "model switching office" approach. QSI identified, with the help of McLeodUSA's engineers, several switching centers that were configured and sized according to McLeodUSA's forward-looking practices. In other words, QSI asked McLeodUSA's engineers to identify end offices that typify the type of office McLeodUSA would build tomorrow, if the need for an additional office arose. Specific attention was paid to the switching architecture, programming and physical layout of these "model offices" (i.e., line and trunk-port configuration, software features/functions, etc.). NUCA (in the "Trunk-to-Trunk Switching Module") uses these model offices to determine trunk-specific costs that are then used to calculate usage-related costs, even for offices that may have an older, and more expensive switching architecture. In other words, NUCA undertakes "technology substitution" so as to ensure that only the most current technology and architecture are used to calculate forward looking costs.
- (b) NUCA undertakes a similar "model office" approach for McLeodUSA Access Nodes and the equipment found therein. For example, NUCA assumes that within every McLeodUSA Access Node (i.e., collocation), McLeodUSA employs a Lucent AnyMedia Fast Access network node, capable of supporting TDM, packet, IP and a number of other technologies (Mfg. Part Number J1C282AB-1 L1 – COT). Even though McLeodUSA's actual configuration may differ across its many Access Nodes (of which it has approximately 650) whereby older, less efficient (and more costly) equipment may actually be used, the model nonetheless assumes the use of the newer, more efficient AnyMedia equipment. This assumption is based upon numerous interviews with McLeodUSA's engineers who discussed the fact that that any new McLeodUSA collocation arrangement would be equipped with this newer, more flexible and efficient equipment.

Likewise, the equipment in the McLeodUSA Access Nodes were sized (and costed) by NUCA, so as to accommodate existing demand, even though they may have originally been sized much larger in anticipation of demand that has not yet been achieved. In this way, NUCA assumes the network is sized efficiently in relation to demand whereby the actual McLeodUSA network may not, in actuality, be sized as efficiently.
- (c) The same general process described in (a) and (b) above is also employed elsewhere throughout the model in relation to transport equipment, DSX/DACs equipment, etc. In general, NUCA includes only that equipment that McLeodUSA would use if it were constructing new network elements tomorrow. It does not incorporate technologies or equipment that may actually be used in the network, but would do not

represent McLeodUSA's forward looking view of an efficient, cost-effective network.

Q. PLEASE DESCRIBE IN MORE DETAIL YOUR DISCUSSION REGARDING THE USE OF NEW PRICES INSTEAD OF EMBEDDED COSTS.

A. Assume that McLeodUSA had purchased a Lucent AnyMedia traffic aggregation node in 1999, for a price equal to \$45,000. Assume further that it is this piece of equipment that McLeodUSA still uses in its network today. Nonetheless, McLeodUSA today could purchase that same, or similar, piece of equipment for \$38,000 given a new contract it has signed with Lucent. NUCA, in that circumstance, would use the \$38,000 price in developing McLeodUSA's "forward looking" costs associated with this equipment, thereby ignoring the "embedded" costs that McLeodUSA actually paid. Likewise, to the extent the new contract included any discounts or special terms and conditions, NUCA would incorporate those as well. NUCA would likewise ignore any accumulated depreciation that McLeodUSA might show on its books related to this older model. Instead, NUCA would assume that the equipment is purchased in the current timeframe and estimate a levelized stream of depreciation payments to be made over the economic life of the facility.

Q. DOES NUCA CAPTURE BOTH DIRECT AND COMMON COSTS?

A. Yes, it does. Direct TSLRIC costs are those costs that are directly incremental to the production of a given service. For example, because a telecommunications switch is required to connect two trunks necessary to complete a call in a simple switched access scenario (i.e., "switching origination or termination"), the switch is considered a direct cost of that particular service. However, there are also relevant economic costs

attributable to that same service, even though they may not be directly incremental to the underlying production of that service, e.g., the time of McLeodUSA's Chief Executive and McLeodUSA's planning and strategy groups (or accounting or any other number of back-office support organizations). While those costs are not directly attributable to the production of switched access services, they are "common" to switched access services along with other services provided by the firm. Likewise, some of those costs are "shared" between switched access services and other services. As such, those costs must be captured and attributed to all of McLeodUSA's products as a whole (including switched access and other usage based services). NUCA captures and attributes these costs via a "common cost" factor. The common cost factor (found in the "Factor Module" described in more detail below), ensures that all of McLeodUSA's products share in the recovery of these common costs equally, by attributing those costs amongst the entirety of McLeodUSA's product catalog. In this way, NUCA ensures that both direct and common costs are captured relative to the service being studied (in this case, switched access services).

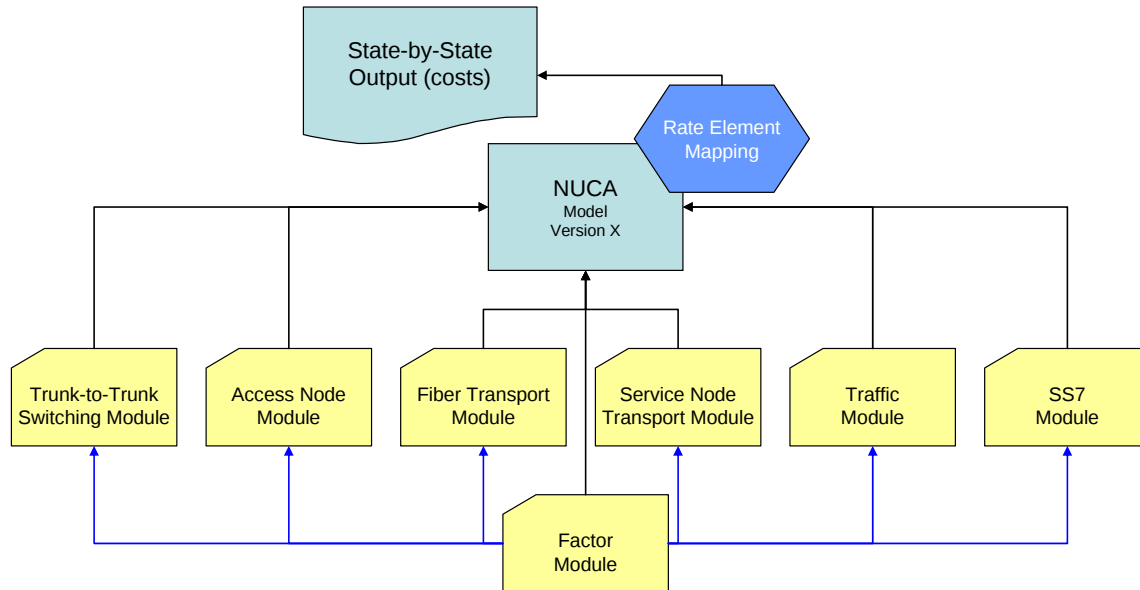
II. NUCA – MECHANICS

Q. PLEASE DESCRIBE THE MANNER BY WHICH NUCA IS DESIGNED FROM A MORE FUNCTIONAL (LESS THEORETICAL) STANDPOINT.

A. The NUCA model is actually a combination of 8 different models. For those cost analysts who have familiarized themselves with the software, the following diagram will provide an overview of how the model itself fits together in relation to the algorithms that use McLeodUSA's underlying data to estimate costs consistent with the theoretical construct described above.

Network Usage Cost Analysis (NUCA)

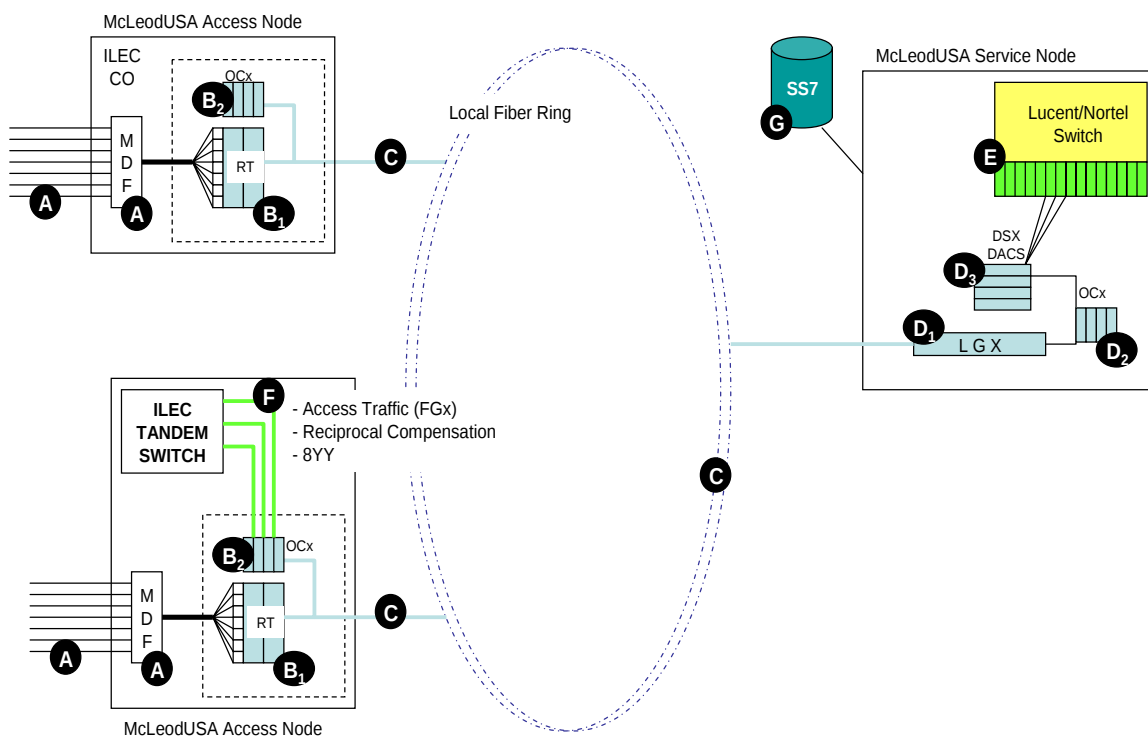
Flow Chart



As depicted above, NUCA itself (i.e., the Excel file entitled “Model” – green box labeled “NUCA Model Version X” above) is used primarily to aggregate investment and cost data from 8 underlying “modules.” It is the underlying modules which incorporate the various engineering assumptions and accumulate invoice-related data for purposes of estimating costs specific to individual components of the network. Notice that each module, with the exception of the “Traffic Module” and the “Factor Module” is specific to a discrete portion of the McLeodUSA switching and transport network (e.g., switching, access node, fiber transport, SS7, etc.). The Factor Module undertakes the financial analysis necessary to calculate capital costs (i.e., return), capital recovery (depreciation) and ongoing expenses (taxes, maintenance, support assets, etc.). The traffic module forecasts demand for McLeodUSA’s switching and transport network based upon past traffic data, thereby providing the necessary data by which to convert total, network-wide costs into unit (i.e., per minute of use)-specific costs.

Q. PLEASE IDENTIFY THE NETWORK ELEMENTS THAT COMPRISE MCLEODUSA'S SWITCHING AND TRANSPORT NETWORK AS CAPTURED BY NUCA.

A. The following diagram, taken directly from the NUCA model,³ provides a high-level overview of the McLeodUSA switching and transport network:



In the diagram above, each major network element comprising McLeodUSA's switching and transport network is identified with an alphabetical symbol surrounded by a black circle. McLeodUSA provided the following description related to each of these elements in its response to Staff's discovery:

McLeodUSA Response 0006:

(A) Represents the “local loop” first connecting an end user customer to the McLeodUSA network – primarily consists of a UNE loop purchased by McLeodUSA from an incumbent local exchange carrier (“ILEC”) such as AT&T. Costs associated with these facilities are not captured by NUCA.⁴

(B1) Initial call aggregation and multiplexing for delivery to the McLeodUSA transport equipment and ultimately to the Service Node. Represents the traffic-sensitive components of the AnyMedia equipment used by McLeodUSA for this purpose.

(B2) SONET Transport Equipment (generally an OC48 multiplexer and associated optronics) located at the nearest collocation (referred to in the model as an “Access Node”) whereby traffic is either aggregated for passage to the tandem (traffic originated on the McLeodUSA network) or receiving traffic from the tandem (traffic to be terminated on the McLeodUSA network).

(D1) Fiber termination equipment located at the Service Node. Includes fiber terminal apparatus, fiber cross-connect equipment and all other equipment necessary to properly terminate the fiber optic transport facilities for connection to terminating optronics equipment.

(D2) SONET Transport Equipment (generally an OC48 multiplexer and associated optronics) located at the McLeodUSA switching center (referred to in the model as “Service Node”). B2 and D1 when combined, represent the OCx transport between the McLeodUSA Access Node and Service Node.

(D3) Includes digital cross-connect and circuit management equipment including both DACS and DSX facilities necessary to manage the individual circuits used in transporting traffic.

(E) Class 5 End Office switch capable of connecting lines to trunks, lines to lines and trunks to trunks. Because McLeodUSA aggregates and terminates all traffic through its Access Node equipment, McLeodUSA’s Class 5 switch primarily accommodates trunk-to-trunk switching.⁵

(F) Trunks provided by McLeodUSA between its own network located within an Access Node and the access tandem.

(G) SS7 facilities and functionality required for call-set up and all other signaling functions. Includes both McLeodUSA-owned facilities (primarily A-Links) and leased equipment/functions from third parties.

³ See NUCA Model Version 2.0, Tab: Rate Element Mapping.

369 **Q. WHAT IS THE OVERARCHING PURPOSE OF EACH OF THE INDIVIDUAL**
370 **MODULES?**

371 A. Consider NUCA's *Access Node Module* as an example. Therein, NUCA identifies all
372 McLeodUSA investments necessary to build and maintain its equipment in numerous
373 collocation arrangements located within various ILEC central offices. This equipment
374 allows McLeodUSA to aggregate traffic from multiple end-users and carriers for efficient
375 transport and delivery back to its centrally located switching center. NUCA aggregates
376 all of the investments related to McLeodUSA's collocated equipment (detailed in
377 numbers B1 and B2 above) and likewise adds expenses related to constructing the initial
378 collocation cage and paying the ILEC for floorspace, power and other elements necessary
379 to maintain the equipment. NUCA then removes from this "gross investment,"
380 investments that are either not "traffic sensitive" (e.g., loop-related costs) or are directly
381 attributable to services other than usage based services (e.g., DSL and other data
382 services). The *Access Node Module* likewise allocates costs that are common to all
383 collocated equipment (i.e., DC power, the collocation expenses themselves, etc.) amongst
384 services captured by NUCA (e.g., switched access), and those not captured by NUCA
385 (e.g., DSL, etc.). This ensures that switched access services, and other usage-based
386 services, capture only their fair share of these common expenses. Next, the *Access Node*
387 *Module* dynamically sizes the McLeodUSA equipment within its collocation space, to
388 conform to McLeodUSA's forecasted demand for services. For example, to the extent
389 McLeodUSA may actually have placed an AnyMedia device in its collocation capable of
390 serving 1,024 DSO ("Digital Server 0") lines, yet its demand indicates that it only
391 requires a facility capable of supporting 512 DS0s, NUCA re-sizes the AnyMedia device

⁴ Not originally provided in response to Staff Data Request 0006 - added here for completeness.

to the more aptly sized, smaller device and calculates investments based upon the smaller piece of equipment. NUCA then calculates a “per access node” investment sized and specific to each collocation arrangement in the McLeodUSA network, 650 in all, 43 in Missouri. Expenses specific to each Access Node location are then added and Annual Charge Factors (“ACFs”) applied to arrive at a per-year expense directly attributable to McLeodUSA’s equipment necessary to support usage-based services. These yearly expenses are then transferred to the *NUCA Model Version 2.0* wherein output from the *Traffic Module* is applied to produce final, per minute of use costs specific to this particular element of the network.

Q. DO THE OTHER INDIVIDUAL MODULES WORK IN THIS SAME FASHION?

A. Yes, generally they do. Of course, many of the modules deal with equipment very different than that studied by the *Access Node Module*, however, the same general method of identifying and sizing the network, gathering relevant cost data and generating monthly specific costs for use in the *NUCA Model Version 2.0* is highly similar.

Q. ABOVE YOU MENTION “ANNUAL CHARGE FACTORS” OR “ACFS,” WHAT ARE ANNUAL CHARGE FACTORS?

A. ACFs are used to convert investments into a stream of monthly costs. You can think of ACFs much like the monthly mortgage you pay on your house. Assume you invest \$100,000 in a house, of which you contribute \$50,000 for a down payment, and fund the remaining \$50,000 with debt, financed from the bank. Each month, you will face a mortgage payment that is likely to include not only an amount to recover interest related

⁵ Not originally provided in response to Staff Data Request 0006 - added here for completeness.

to the loan, but also expenses related to insurance, taxes and other incidentals that have been escrowed (and levelized over the 12 months in a year). Much like a mortgage payment, ACFs generate yearly (instead of monthly) costs related to a given investment by identifying the various financial responsibilities that go along with owning real property. These responsibilities generally include: (a) a return on capital contributed by shareholders, (b) interest payments on debt, (c) expenses related to depreciation, (d) taxes, both property related taxes and revenue related taxes, and (e) costs associated with maintaining the equipment and keeping it in working, revenue-producing order.

Q. HOW DOES NUCA ACCOUNT FOR THESE TYPES OF EXPENSES?

A. NUCA's *Factor Module* calculates ACFs that are specific to various types of equipment used throughout McLeodUSA's network. Different ACFs are required because different types of equipment depreciate at different rates and likewise, may have very different levels of required maintenance support (and other differences). The *Factor Module* gathers all of the relevant data, primarily accounting data, necessary to identify these various expenses, and then creates ratios of expense-to-investment which are generally referred to as ACFs. These ACFs are then applied within the various NUCA modules to translate initial investments into ongoing, or monthly, expenses.

II. NUCA – RESULTS

Q. EARLIER IN YOUR TESTIMONY YOU PROVIDED A TABLE DEMONSTRATING THE NUCA RESULTS RELATIVE TO VARIOUS SWITCHED ACCESS CHARGES MCLEODUSA IS PROPOSING VIA THE TARIFF AT ISSUE IN THIS PROCEEDING. ARE THOSE RESULTS A FAIR

**INDICATION OF THE COSTS MCLEODUSA INCURS TO PRODUCE THOSE
SERVICES?**

A. Yes. Those rates just cover the forward looking direct and common costs generated by NUCA. Rates below the level proposed by McLeodUSA in the tariffs under consideration in this case could not be said to exceed the TSLRIC costs McLeodUSA incurs in providing intrastate switched access services to its Missouri access customers. Requiring McLeodUSA to charge rates that are below relevant TSLRIC costs would prevent McLeodUSA from recovering its reasonable costs of providing the services to its access customers.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Exhibit No. _____

Issue: Cost Study Supporting Rates

John Balke

Direct Testimony

McLeodUSA

Case No. TT-2006-0474

August 25, 2006

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**DIRECT TESTIMONY
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August 25, 2006

SCHEDULE JB1

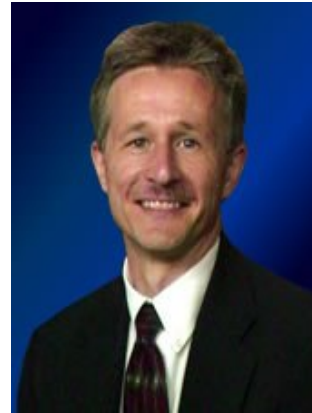
**SCHEDULE JB1
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Biography

Mr. Balke has over 24 years of telecommunications industry experience. The majority of Mr. Balke's career has been dedicated to technical and cost analysis functions associated with telecom networks, services, and business decisions for products. Mr. Balke's experience includes extensive knowledge of a variety of telecom technologies, architectures, and services such as loop (copper, fiber, Digital Loop Carrier, Wireless, DSL), Inter-Office Transport, switching and Internet.

Mr. Balke was an Associate Director of Cost Analysis & Regulatory for SBC and Ameritech (n/k/a AT&T). In that capacity he led a team responsible for regulatory policy cost models and cost study work for loops, sub-loops, inter-office facilities, and unbundled network elements. Mr. Balke was responsible for loop modeling methods and development, and testimony support for cost witnesses. Under his direction, many innovative cost modeling methods were developed and used successfully in many jurisdictions.

Mr. Balke also worked in Budapest developing loop cost methodology for Hungary's largest Telecom Company, MATAV. His skills include experience working in the network operations of several telecommunications firms in the areas of transmission engineering, planning for digital and analog carrier systems, cables, and equipment.

Since leaving SBC, Mr. Balke has constructed, critiqued, and/or reviewed telecommunications costing models for many large companies and has provided expert engineering and cost analysis testimony for numerous clients such as local and competitive telephone companies, and state regulatory agencies.

Educational Background

Bachelor of Science, Electrical Engineering Marquette University,
Milwaukee, Wisconsin 1981

John C. Balke

Professional Experience

Independent Telecom Consultant

2001 – 2003 and 2005 to Present

QSI Consulting, Inc.

2003 - 2005

Senior Consultant

TRAIAN Internet Products Inc.

2000 - 2001

Senior Consultant

Telecommunications

SBC Communications

2000

Associate Director

Cost Analysis and Regulatory

Ameritech

1993 - 2000

Regulatory Policy Organization

Telecommunications

Wisconsin Telephone/Ameritech

1986 - 1993

Network Cost Analyst

AT&T

1984 - 1986

Supervisor

Contracted Facilities

Wisconsin Telephone

1981 - 1983

Manager

Transmission Engineering

1978 - 1980

Various Engineering Positions

College Co-op program

Expert Testimony – Profile

The information below is Mr. Balke's best effort to identify all proceedings wherein he has either provided pre-filed written testimony, an expert report or provided live testimony.

Before the Illinois Commerce Commission ICC Docket No. 02-0864

Illinois Bell Telephone Company Filing to Increase Unbundled Loop and Nonrecurring Rates, Illinois Commerce Commission

On behalf of WorldCom, Inc., McLeodUSA Telecommunications Services, Inc., Covad Communications Company, TDS Metrocom, LLC, Allegiance Telecom of Illinois, Inc., RCN Telecom Services of Illinois, LLC, Globalcom, Inc., Z-Tel Communications, Inc., XO Illinois, Inc., Forte Communications, Inc., CIMCO Communications, Inc.

Direct May 6, 2003

Surrebuttal February 20, 2004

Before the Illinois Commerce Commission ICC Docket No. 97-0515

Investigation into the Forward-Looking Economic Cost Studies for Nonrural Local Exchange Carriers, Illinois Commerce Commission

On behalf of Ameritech Illinois Rebuttal February 20, 1998

John C. Balke

Before the Indiana Utility Regulatory Commission

IURC Cause No. 42393

In the Matter of the Commission Investigation and Generic Proceeding of Rates and Unbundled Network Elements and Collocation for Indiana Bell Telephone Company Incorporated d/b/a SBC Indiana Pursuant to the Telecommunications Act of 1996 and Related Indiana Statutes

On behalf of WorldCom, Inc.(“MCI”), McLeodUSA Telecommunications Services, Inc., Covad Communications Company, Z-Tel Communications, Inc. Response August 15, 2003

Before the 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 Provided by SBC Ameritech Michigan

On behalf of MCI Initial January 20, 2004 Reply May 10, 2004

Before the Michigan Public Service Commission

MPSC Case No. U-11635

In the Matter of the Application of Ameritech Michigan for Approval of Its Forward-Looking Economic Cost Study for Use in Determining Federal Universal Service Support

On behalf of Ameritech Michigan Direct February 13, 1998 Rebuttal June 3, 1998

Before the Public Utilities Commission of Ohio

PUCO Case No. 02-1280-TP-UNC

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

On behalf of MCI Initial May 28, 2004

Before the Public Service Commission of Wisconsin

PSCW Docket No. 6720-TI-187

Petition of Wisconsin Bell, Inc., d/b/a SBC Wisconsin to Establish Rates and Costs for Unbundled Network Elements

On behalf of MCI Rebuttal June 15, 2004

Before the Public Service Commission of Wisconsin

PSCW Docket No. 05-TI-160

Investigation of Cost study Methodologies for Determining Universal Service Subsidies for Nonrural local Exchange Carriers, Wisconsin Public Service Commission, Cause No. 05-TI-160

On behalf of Ameritech Wisconsin Rebuttal March 4, 1998 Surrebuttal March 11, 1998

Exhibit No. _____
Issue: Cost Study Supporting Rates
John Balke
Direct Testimony
McLeodUSA
Case No. TT-2006-0474
August 25, 2006

**BEFORE
THE MISSOURI PUBLIC SERVICE COMMISSION**

In the Matter of McLeodUSA's	)	
Telecommunications Services, Inc.'s	)	Case No. TT-2006-0474
Tariff Filing to Increase its Missouri	)	Tariff No. JC-2006-0789
Intrastate Access Rates	)	
	)	

**DIRECT TESTIMONY
OF
JOHN BALKE**

On behalf of
McLeodUSA Telecommunications Services, Inc.

August 25, 2006

SCHEDULE JB2

***** CONTAINS HIGHLY CONFIDENTIAL MATERIAL *****

To be viewed only by those parties having signed or otherwise subject to an appropriate
protective agreement

SCHEDULE JB2