



May 27, 2005

Ms. Blanca S. Bayo
Director, Division of the Commission
Clerk and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

via Hand Delivery

Re: Docket No. 041464; Petition of Sprint – Florida, Incorporated for arbitration of an Interconnection Agreement with Florida Digital Network, Inc. pursuant to Section 252 of the Telecommunications Act of 1996

Dear Ms. Bayo:

Attached please find for filing in the above matter on behalf of FDN Communications the prefiled direct testimony of Kevin P. Smith and the prefiled direct panel testimony and exhibits of Dr. August Ankum, Warren Fischer and Sidney Morrison.

If you have any questions regarding the enclosed, please call me at 407-835-0460

Sincerely,

s/ Matthew Feil

Matthew Feil
General Counsel
FDN Communications

C: Susan Masterton (by email, U.S. mail)
Kira Scott (by email, U.S. mail)

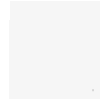
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the prefiled direct testimony of Kevin P. Smith and the prefiled direct panel testimony and exhibits of Dr. August Ankum, Warren Fischer and Sidney Morrison was sent by e-mail and regular mail to the persons listed below this 27th day of May, 2005.

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

Petition of Sprint-Florida, Inc. for Arbitration of an Interconnection Agreement with Florida Digital Network, Inc. Pursuant to Section 252 of the Telecommunications Act of 1996))))	Docket No. 041464-TP Filed: May 27, 2005
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**DIRECT PANEL TESTIMONY OF DR. AUGUST H. ANKUM,
WARREN R. FISCHER AND SIDNEY L. MORRISON**

**ON BEHALF OF
FLORIDA DIGITAL NETWORK, INC. D/B/A FDN COMMUNICATIONS**

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- Exhibit No. ____ CV August H. Ankum (Exh. AHA-1)
- Exhibit No. ____ CV Warren R. Fischer (Exh. WRF-1)
- Exhibit No. ____ CV Sidney L. Morrison (Exh. SLM-1)

1 **I. INTRODUCTION**

2 **Q. PLEASE STATE THE NAMES OF THE PANEL MEMBERS**
3 **SUPPORTING THIS TESTIMONY.¹**

4 A. The panel members supporting this testimony are Dr. August H. Ankum, Mr.
5 Warren Fischer, C.P.A. and Mr. Sidney L. Morrison.

6 *A. Qualifications of August H. Ankum*

7 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS**
8 **ADDRESS.**

9 A. My name is Dr. August H. Ankum. I am a Senior Vice President at QSI
10 Consulting, Inc., a consulting firm specializing in economics and
11 telecommunications issues. My business address is 1361 North Hoyne, Suite
12 #1, Chicago, IL 60622.

13 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
14 **WORK EXPERIENCE.**

15 A. I received a Ph.D. in Economics from the University of Texas at Austin in
16 1992, an M.A. in Economics from the University of Texas at Austin in 1987,
17 and a B.A. in Economics from Quincy College, Illinois, in 1982.

18

¹ Although this testimony is panel testimony, FDN's response testimony may be submitted individually, depending on the nature of Sprint's submission supporting its proposed rates. See *infra* note 3.

1 My professional background covers work experiences in private industry and
2 at state regulatory agencies. As a consultant, I have worked with large
3 companies, such as AT&T, AT&T Wireless and MCI WorldCom , as well as
4 with smaller carriers, including a variety of competitive local exchange
5 carriers (“CLECs”) and wireless carriers. I have worked on many arbitration
6 proceedings between new entrants and incumbent local exchange carriers
7 (“ILECs”). Specifically, I have been involved in arbitrations between new
8 entrants and Sprint, NYNEX, Bell Atlantic, U S WEST, BellSouth,
9 Ameritech, SBC, GTE and Puerto Rico Telephone and others. Prior to
10 practicing as a telecommunications consultant, I worked for MCI
11 Telecommunications Corporation (“MCI”) as a senior economist. At MCI, I
12 provided expert witness testimony and conducted economic analyses for
13 internal purposes. Before I joined MCI in early 1995, I worked for Teleport
14 Communications Group, Inc. (“TCG”), as a Manager in the Regulatory and
15 External Affairs Division. In this capacity, I testified on behalf of TCG in
16 proceedings concerning local exchange competition issues, such as
17 Ameritech’s Customer First proceeding in Illinois. From 1986 until early
18 1994, I was employed as an economist by the Public Utility Commission of
19 Texas (“PUCT”) where I worked on a variety of electric power and
20 telecommunications issues. During my last year at the PUCT I held the
21 position of chief economist. Prior to joining the PUCT, I taught
22 undergraduate courses in economics as an Assistant Instructor at the
23 University of Texas from 1984 to 1986.

1
2 Of particular importance to the current proceeding is my extensive
3 background in and experience with the cost models of various incumbent
4 local exchange carriers. A list of proceedings in which I have filed testimony
5 is attached hereto as Exhibit No. ____ (AHA-1).

6 ***B. Qualifications of Warren R. Fischer***

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

9 A. My name is Warren R. Fischer. My business address is 2500 Cherry Creek
10 Drive South, Suite 319, Denver, Colorado 80209.

11 **Q. WHAT IS YOUR POSITION WITH QSI?**

12 A. I currently serve as Director of Business Services and Research.

13 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

14 A. I have a Bachelor of Science degree in Business Administration with a
15 concentration in Accounting from the University of Colorado in Boulder,
16 Colorado. I am licensed as a Certified Public Accountant in the States of
17 Colorado and California.

18 **Q. WHAT IS YOUR EMPLOYMENT BACKGROUND?**

19 A. After graduating from the University of Colorado, I worked for several years
20 as an accountant with Deloitte & Touche conducting financial audits.
21 Thereafter, I worked for two major corporations as a financial analyst. I
22 joined AT&T Wireless Services in 1995 as a financial analyst where I

1 managed the preparation of annual revenue forecasts for the company's
2 cellular division. In 1996, I transferred to AT&T Corp. where I became a
3 financial manager and a subject matter expert on pricing and costing issues
4 involving local exchange and exchange access services. In 2000, I joined
5 QSI as a Senior Consultant.

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

8 A. I previously filed testimony with the Florida Public Service Commission in
9 Docket No. 990649B-TP on Verizon Florida's UNE deaveraging and cost
10 factor proposals and provided technical assistance to FDN in its review of
11 Sprint's rates in that proceeding. I have also testified at the FCC and before
12 several other state regulatory bodies on subjects ranging from competitive
13 local exchange carrier cost issues, revenue requirements, interconnection
14 costs, access rate reform, Universal Service Fund reform, payphone subsidy
15 removal from LEC access charges and Section 272 provisions of the federal
16 Act. Exhibit No. ___ (WRF-1) contains a more detailed explanation of my
17 education, experience and previous testimony.

18 ***C. Qualification of Sidney L. Morrison***

19 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS**
20 **ADDRESS.**

21 A. My name is Sidney L Morrison. My business address is 550 Sunset Lakes
22 Blvd. SW, Sunset Beach, NC 28468.

1 Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE.

2 A. I have over 30 years of experience in the telecommunications industry. I
3 began my telecommunications career in 1966 in Charlotte, North Carolina as
4 a cable helper for Southern Bell Telephone and Telegraph. Southern Bell
5 was an incumbent local exchange carrier managing numerous exchanges
6 throughout North Carolina. My duties involved splicing underground, buried
7 and aerial cable. I also worked as a switching technician and special services
8 technician.

9 Beginning in August of 1970, I transferred to Mountain Bell in
10 Denver, Colorado as a central office technician. In 1972, I was promoted to
11 supervise main distribution frame ("MDF") operations. My duties included
12 supervising the installation of POTS, Special Services, Central Office area
13 cuts, main distribution frame replacements and many other projects. In 1980
14 and 1981, I performed time and motion studies for service provisioning on
15 approximately 75 of Mountain Bell's MDF operations. These time and
16 motion studies included components for jumper running and administrative
17 activities on each of these frames. From 1983 until 1986, I was the switching
18 control center and MDF subject matter expert for U S WEST. In this
19 position, I was responsible for staff level support for service provisioning and
20 maintenance including the development of enhancements for operational
21 support systems ("OSS") supporting these activities. From 1986 until my
22 retirement from U S WEST in 1993, I was responsible for the U S WEST

1 Automatic Message Accounting teleprocessing organization for the fourteen
2 state U S WEST region.

3 From 1993 through 2000 I held a series of positions abroad (in Kuala
4 Lumpur, Malaysia and Switzerland) working for competitive
5 telecommunications providers building new networks from the ground up. I
6 joined QSI in 2000, where I provide telecommunications companies with
7 engineering advice and counsel for direct network planning, management and
8 cost-of-service support. My specific areas of expertise include network
9 engineering, facility planning, project management, business system
10 applications, incremental cost research and issues related to the provision of
11 unbundled network elements. A more comprehensive description of my
12 work experience and educational background is included as Exhibit No. ____
13 (SLM-1).

14 ***D. Purpose***

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

16 A. The purpose of our testimony is to discuss a number of issues related to
17 Sprint's cost studies. Since Sprint has not yet provided FDN with a complete
18 set of cost studies in the current proceeding, our discussion is based on non-
19 proprietary materials from other Sprint UNE cost filings, most notably in
20 Docket No. 990649B.

21

1 Although the Commission set rates in the 990649B proceeding that
2 superceded the previous stipulated rates, FDN appealed those rates to the
3 United States District Court for the Northern District of Florida on the
4 grounds that the rates set in the 990649B proceeding were not based on
5 substantial evidence and were not TELRIC compliant.² While the case has
6 remained pending at the court for the past year, FDN has not executed an
7 interconnection agreement with Sprint reflecting the 990649B rates, and
8 Sprint has made no attempt to compel FDN to do so via a complaint or other
9 proceeding filed with the Commission.

10 It is our understanding that during the negotiations that preceded this
11 arbitration, Sprint proposed that FDN accept on a going-forward basis the
12 990649B rates as part of its new interconnection agreement. FDN has
13 refused to do so because it believes those rates are inflated and not TELRIC
14 compliant. Moreover, since those rates were set largely based on data from
15 2000, now is an appropriate time for them to be re-set. Although, as noted
16 above, FDN has not yet received the evidentiary basis for Sprint's proposed
17 rates, this testimony outlines some of the flaws with prior Sprint cost
18 proposals which we expect will recur here. FDN will shortly propound
19 significant discovery on Sprint that will provide it with the ability to further

² See *Florida Digital Network, Inc. v. Sprint-Florida, Inc.*, Case No. 4:03 CV 282-RH-WCS (N.D. Fla.).

1 test the bases for Sprint's cost model, which FDN presumes Sprint will file
2 with its Direct Testimony.³

3 **Q. DOES FDN DISAGREE WITH ALL OF THE RATES SPRINT HAS**
4 **PROPOSED?**

5
6 A. Yes. FDN disagrees with all of the UNE rates that Sprint has proposed.
7 Further, on May 16, Sprint provided FDN with a new/revised rate schedule
8 without explaining what had changed from prior versions of the rate
9 schedules or why. Sprint provided a verbal explanation on May 26. FDN
10 has not yet confirmed what has changed from the former rate schedules and
11 whether the changes jibe with Sprint's explanation. Accordingly, for
12 purposes of this testimony, FDN simply disagrees with the rates Sprint has
13 proposed.

14 **Q. DO YOU HAVE A PRELIMINARY RECOMMENDATION?**

15 A. Yes. The telecommunications industry is generally considered to be a
16 declining cost industry. This means that one would expect costs (and prices)
17 to gradually decline over time. The rates set in the 990649B proceeding were
18 significantly higher than the stipulated rates that were previously in place and
19 that FDN is currently paying. At a minimum, FDN would expect the UNE
20 rates it currently pays to constitute the upper limit of the rates set in this
21 proceeding.

³ FDN asked Sprint to provide it with a copy of its cost model several weeks ago, but Sprint has, thus far, not done so. FDN, therefore, reserves the right to raise additional issues in its rebuttal testimony.

1 **Q. WHEN SHOULD ANY NEW RATES BECOME EFFECTIVE?**

2 A. The rates should become effective at the conclusion of this proceeding when
3 the Commission approves the parties' new interconnection agreement.
4 Although Sprint's petition asks that the PSC make new rates effective
5 retroactively to January 1, 2005, there is no basis for this request from an
6 economic perspective. The retroactive rates Sprint seeks would apply
7 forward-looking TELRIC based rates to a historic period for which these
8 rates were not found to be appropriate. Moreover, it would be unfair to FDN
9 to retroactively change the economic conditions under which it made its prior
10 business decisions. (At the appropriate time, FDN's lawyers will address the
11 legality of such retroactive rate-making.)

12 **II. EVALUATION OF SPRINT'S LOOP STUDIES**

13 **Q. HAS SPRINT IN THE PAST FAILED TO PROVIDE ADEQUATE**
14 **SUPPORT FOR ITS COST STUDIES?**

15 A. Yes. We have evaluated Sprint cost models in numerous jurisdictions
16 throughout the country and generally found that the accompanying
17 explanatory materials lack sufficient detail and support. We also find that
18 Sprint's studies are frequently based on flawed assumptions and
19 methodologies, as the FCC and other state commissions have recognized.

1 *A. Loop Investment – Problems With Model Methodology*

2 **Q. ARE THERE KNOWN PROBLEMS WITH SPRINT’S LOOP COST**
3 **MODEL?**

4 A. Yes. The FCC has found that the Benchmark Cost Proxy Model (“BCPM”),
5 which is the basis for the Sprint Loop Cost Model (“SLCM”), overstates loop
6 costs because of its grid approach to locating and grouping customers. *See*
7 *Fifth Report and Order, Federal-State Joint Board on Universal Service;*
8 *Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, 13
9 FCC Rcd 21323, ¶ 27 (1998) (“USF Platform Order”). Based on the non-
10 proprietary documentation that Sprint has provided to support its SLCM, it
11 appears that Sprint’s model suffers from the same flaws. *See* Sprint Loop
12 Cost Model, Model Methodology, page 3, May 1, 2000 included in FL
13 SLCM 2001 documentation (referring to Sprint’s grouping of customers into
14 serving areas). FDN hopes to clarify Sprint’s methodology through
15 discovery.

16 *B. Customer Locations*

17 **Q. SHOULD SPRINT’S SLCM METHODOLOGY BE PROBED TO SEE**
18 **IF IT DISPLAYS CERTAIN KNOWN FLAWS ABOUT CLUSTERING**
19 **AND CUSTOMER LOCATIONS?**

20 A. Yes. Sprint’s SLCM methodology needs to be examined to assess how
21 similar it is to the BCPM (Version 3.0) that was criticized by the FCC
22 because of its systematic overstatement of outside plant investment. Sprint’s

1 answers to our discovery questions should allow us to further probe this
2 issue. To the extent that Sprint's model proves problematic, as we expect, we
3 will propose alternative approaches in subsequent testimony.

4 **Q. PLEASE PROVIDE A DISCUSSION OF THE FCC'S FINDINGS ON**
5 **THIS IMPORTANT ISSUE.**

6 A. The FCC reached the following conclusions about appropriate customer
7 location methodologies when it evaluated the HAI and BCPM cost models in
8 the *USF Platform Order*:

9 Each model has a method for determining where customers
10 are located. The issues raised are whether to use actual
11 geocode data, to the extent they are available, and what
12 method to use for determining surrogate customer locations
13 where geocode data are not available. *We conclude that*
14 *HAI's proposal to use actual geocode data, to the extent that*
15 *they are available, is the preferred approach, and BCPM's*
16 *proposal that we use road network information to determine*
17 *customer location where actual data are not available,*
18 *provides the most reasonable method for determining*
19 *customer locations.*

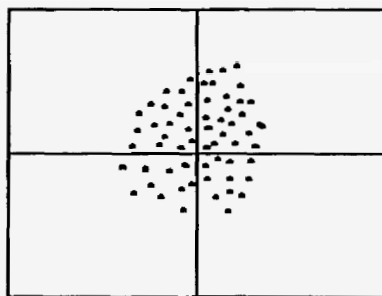
20 *USF Platform Order* ¶ 31 (emphasis added). In choosing geocoded data to
21 locate customers, the FCC explained that:

22 We conclude that a model is most likely to select the least-
23 cost, most-efficient outside plant design if it uses the most
24 accurate data for locating customers within wire centers, and
25 that the most accurate data for locating customers within
26 wire centers are precise latitude and longitude coordinates
27 for those customers' locations.

28 *Id.* ¶ 33.

29 As we understand it, Sprint's cost proposal is not based on the
30 geocoded data, but instead uses a gridding approach to estimate customer

1 locations. While the grid approach is simpler than the clustering approach, it
2 can generate significant artificial costs. The grid approach to customer
3 location mapping works by placing a grid over a populated area, and
4 concluding that any customers that fall within a given grid cell will be served
5 together. Because a simple grid cannot account for actual groupings of
6 customers, however, grid boundaries may cut across natural population
7 clusters. Serving areas based on grids may, therefore, generate for cost
8 modeling purposes, separate facilities to serve customers that are, in fact, in
9 close proximity. The worst-case scenario would involve a natural cluster of
10 customers that, given distance and engineering constraints, could be served as
11 a single serving area but that happened to be centered over the intersection of
12 a set of grid lines, as shown below.



13
14 In this example, a population that is properly considered one serving area
15 would instead be divided, for modeling purposes, into four, and significantly
16 over-stating costs. As we understand it, Sprint's cost proposals are based on
17 this inappropriate grid approach which has been rejected by the FCC. Our
18 discovery will shed additional light on this issue. We believe that geocoded
19 data is readily available and that Sprint should be required to use it.

1 | **III. SLCM INPUT ASSUMPTIONS**

2 | *A. Cable Fill Factor Methodology*

3 | **Q. PLEASE DESCRIBE SPRINT'S GENERAL CABLE SIZING**
4 | **METHODOLOGY.**

5 | A. Cable deployment – both distribution and feeder plant – are major drivers of
6 | cost, and Sprint's cost models have historically inflated these costs by
7 | assuming unreasonably low utilization rates (e.g., "fill factors"). Per Sprint's
8 | loop study documentation, its cable fill factors are determined as follows:

9 | **Cable Sizing Factor (Fill Factor)**⁴

10 | Cables are engineered to be filled to capacity, in 3 to 5 years
11 | based on a forecast of anticipated demand. This means that
12 | cables are sized larger than initially needed to fill service
13 | requests until the next cable addition.

14 | The use of anticipated demand overstates costs because it will result in the
15 | ILEC installing cables that are larger than required in a forward-looking cost
16 | construct. Larger cable sizes mean that the cost of unused capacity must be
17 | borne by current wholesale customers. The FCC has consistently stated that
18 | fill factors should reflect current demand and not the industry practice of
19 | building distribution plant to meet ultimate demand.⁵

⁴ See pages 27-28 of Sprint's Loop Module *Loop Documentation*.

⁵ See *Petition of WorldCom, Inc. Pursuant to Section 252(r)(5) of the Comms. Act for Preemption of the Jurisdiction of the Virginia State Corp. Comm'n re Interconnection Disputes with Verizon Virginia, Inc., and for Expedited Arbitration*, 17 FCC Rcd. 27039, ¶ 247 (2002) ("Virginia Arbitration Order").

1 ***B. Actual Cable Fill Factors Used By Sprint In SLCM***

2 **Q. PLEASE DISCUSS SPRINT'S USE OF ACTUAL CABLE FILL**
3 **FACTORS.**

4 A. At this time, we do not have a complete understanding of how Sprint models
5 its cable fill factor inputs. Some information is located in the non-proprietary
6 Loop section of its documentation in the *Density Cable Sizing Factor Table*
7 (Input.xls) filed in Docket No. 990649B, but important proprietary
8 information is as yet unavailable and will be addressed in subsequent
9 testimony, to be filed as necessary.⁶

10 ***C. Structure Sharing***

11 **Q. WHY ARE STRUCTURE SHARING ASSUMPTIONS IMPORTANT**
12 **AND WHAT SHARING ASSUMPTIONS ARE REASONABLE?**

13 A. Structure sharing -- *i.e.*, the outside telephone plant's use of poles and conduit
14 and the extent to which it shares those facilities with other utilities such as
15 electric and cable TV companies -- is an important driver of loop plant costs.
16 The greater the sharing assumptions in a model, the lower the cost.
17 Understating the structure sharing percentages, on the other hand, increases
18 the investment cost in the model since the telephone company bears more

⁶ We assume that the SLCM fill is the input into the model (and is calculated by adding an unexplained percentage to the actual fill factor.) But Sprint's supporting work paper values are consistent with the *Density Cable Sizing Factor Table* found in the SLCM Loop.xls file but inconsistent with the *Density Cable Sizing Factor Table* in SLCM Inputs.xls file. It is not clear which file is used in the model processing. This will be clarified through discovery.

1 than its forward-looking share of the structure costs. In its *USF Inputs*
2 *Order*,⁷ the FCC determined that the following structure sharing percentages
3 were appropriate for USF cost support estimates:

4 We adopt the following structure sharing percentages that
5 represent what we find is a reasonable share of structure
6 costs to be incurred by the telephone company. For aerial
7 structure, we assign 50 percent of structure cost in density
8 zones 1-6 and 35 percent of the costs in density zones 7-9
9 to the telephone company. For underground and buried
10 structure, we assign 100 percent of the cost in density zones
11 1-2, 85 percent of the cost in density zone 3, 65 percent of
12 the cost in density zones 4-6, and 55 percent of the cost in
13 density zones 7-9 to the telephone company.

14 *Id.* ¶ 241.

15 **Q: DO SPRINT'S STRUCTURE SHARING ESTIMATES COMPORT**
16 **WITH THE FCC'S FINDINGS OF WHAT CONSTITUTES**
17 **REASONABLE SHARING ASSUMPTIONS?**

18 **A:** No. The model Sprint submitted in the 990649B proceeding assumed that
19 90% of outside plant structure costs would be assigned to it and only 10%
20 was assigned to other utilities for underground feeder and distribution. Sprint
21 submitted no evidence to support this estimate, which greatly exceeds FCC's
22 determination of reasonable sharing assumptions.

23 Sprint's model likewise allocates 100% of the structure cost for all
24 zones for buried feeder and distribution to Sprint because it says sharing will
25 not occur with buried feeder and distribution. Finally, Sprint assigned itself

⁷ Tenth Report and Order, *Federal-State Joint Board on Universal Service; Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, 14 FCC Rcd 20156, ¶ 241 (1999).

1 31% of structure costs for pole utilization, assuming that other utilities would
2 only account for 69% of these costs. As noted in the table above, this sharing
3 assumption exceeds the FCC's estimate of what is reasonable.

4 ***D. Feeder Plant Mix Assumptions***

5 **Q. PLEASE COMPARE SPRINT'S AND THE FCC'S APPROVED**
6 **PLANT MIX.**

7 **A.** The following table provides the FCC's approved feeder plant mix by density
8 zone in the *USF Inputs Order*:⁸

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

9
10 When compared to the FCC's approved feeder plant mix, Sprint's
11 assumptions weight the feeder plant mix towards the higher cost underground
12 and buried cable placement options. In the lowest density zone, Sprint only
13 assumes a small percentage of aerial placement for both copper and fiber
14 feeder, while the FCC assumes 45% in the same density zone. The basis for
15 these inputs must be evaluated.

⁸ *Id.*

1 Also, the FCC found that the plant mix ratios should not vary between
2 copper feeder and fiber feeder. *USF Inputs Order* ¶ 240. Sprint should be
3 required to explain why its serving area plant mix differs so significantly
4 from the national averages determined by the FCC. FDN will seek this
5 information in discovery.

6 ***E. Distribution Plant Mix Assumption***

7 **Q. PLEASE COMPARE SPRINT'S DISTRIBUTION PLANT MIX**
8 **RELATIVE TO THE FCC'S APPROVED MIX.**

9 A. The following table provides the FCC's approved distribution plant mix in
10 the *USF Inputs Order*:⁹

Density	UG	Buried	Aerial
0	0.00%	60.00%	40.00%
5	1.00%	62.00%	37.00%
100	2.00%	68.00%	30.00%
200	4.00%	66.00%	30.00%
650	8.00%	62.00%	30.00%
850	20.00%	50.00%	30.00%
2550	40.00%	30.00%	30.00%
5000	60.00%	10.00%	30.00%
10000	90.00%	0.00%	10.00%

11
12 When compared to the FCC's approved distribution plant mix based on
13 nationwide values, Sprint's assumptions clearly weight the distribution plant
14 mix towards the higher cost buried cable placement options. In the lowest
15 density zone, Sprint only assumes low percentage of aerial placement, while

⁹ See *hcpm_inputs_October1999.xls* file containing approved USF inputs used in HCPM model by FCC.

1 the FCC assumes 40% in the same density zone. Sprint should explain why
2 its serving area plant mix differs so significantly from the national averages
3 determined by the FCC. FDN will seek this information in discovery.

4 *F. Digital Loop Carrier Assumptions*

5 **Q HAS SPRINT IN THE PAST FAILED TO FULLY EXPLAIN ITS USE**
6 **OF GR-303?**

7 A Yes. In Docket No. 990649B, Sprint maintained that its DLC inputs are
8 appropriately modified to reflect a lower cost GR-303 Integrated DLC
9 (IDLC) configuration. Sprint's supporting documentation' does not
10 adequately explain or support this assertion. Therefore, we will propound
11 discovery on this issue to assess whether Sprint's filing comports with its
12 stated position and reserve the right to file additional testimony as necessary.

13 **IV. ANNUAL CHARGE FACTORS ("ACFs") AND OTHER COST**
14 **FACTORS**

15 **Q HAVE SPRINT'S ACFS BEEN HARD TO VERIFY IN THE PAST?**

16 A Yes. In Docket No. 990649B, for example, it was hard to evaluate the
17 appropriateness of the maintenance portion of Sprint's ACFs. Sprint must
18 provide its supporting calculations and not just the data provided in past
19 filings as hard coded in the ACF module.

20 **Q WHAT PROBLEMS HAVE YOU NOTED WITH SPRINT'S OTHER**
21 **COST FACTORS?**

1 A. In Docket No. 990649B, Sprint's common cost factor calculation was
2 problematic because over 85% of the common cost denominator was derived
3 from Sprint's TELRIC investment calculations to which the common cost
4 factor will eventually be applied. Since the numerator of the common cost
5 calculation is primarily book costs adjusted for avoidable retail costs, the
6 denominator should also be based upon book cost to maintain consistency
7 between the numerator and the denominator. We will seek discovery on this
8 issue.

9 **V. NON-RECURRING CHARGES**

10 **Q. PLEASE IDENTIFY THE ISSUES THAT WILL BE OF GREATEST**
11 **IMPORTANCE IN EVALUATING SPRINT'S NON-RECURRING**
12 **COST STUDIES.**

13 A. We will examine Sprint's non-recurring cost studies for a number of
14 important issues that impact costs. Perhaps the most important of those
15 issues and considerations are the following:

- 16
- 17 • Many ILECs do not appear to recognize the right of CLECs to charge
18 for costs they incur when the ILEC wins back a customer from the
19 CLEC. For example, all carriers need to remove the customer's
20 telephone number from their switches when they lose a customer.
21 When Sprint wins back an FDN customer, it charges FDN a

1 disconnection fee. Put simply, if Sprint is permitted to charge for this
2 activity, then so should FDN.

- 3 • Costs associated with a customer that chooses to discontinue its
4 service with Sprint are, under TELRIC, not the responsibility of
5 FDN. Sprint's NRC model will be scrutinized to ensure that such
6 costs are excluded. In general, we recommend that the Commission
7 reject any proposal to recover in its charges to FDN the costs of
8 discontinuing service to customers that have chosen to leave Sprint.
- 9 • All carriers need to communicate about the migration of customers
10 from one carrier to another carrier. To the extent that this requires
11 carriers to issue service orders, carriers should absorb these costs
12 themselves. Under an efficient OSS, the costs of service ordering
13 should be minimal.
- 14 • In general, as held by many state commissions and by the FCC in the
15 *Virginia Arbitration Order*, fall out rates should be no higher than
16 2%.¹⁰ We understand that the fall-out rate inputs in Sprint's cost
17 model are much higher.

¹⁰ See also *Consolidated Petitions of New England Telephone and Telegraph Company d/b/a Bell-Atlantic-Massachusetts, Teleport Communications Group, Inc., Brooks Fiber Communications of Massachusetts, Inc, AT&T Communications of New England, Inc., MCI Telecommunications Company, and Sprint Communications Company, L.P., pursuant to Section 252(b) of the Telecommunications Act of 1996, for arbitration of interconnection agreements between Bell Atlantic-Massachusetts and the aforementioned companies, D.P.U./D/T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-L, Order at 12 (1999); In the Matter, on the Commission's own motion to consider the total service long run incremental costs for all access, toll, and local exchange services provided by Ameritech Michigan, Michigan Public Service Commission Case No. U-11831, Opinion and Order at 27 (Nov. 16, 1999); Re Southern New England Telephone Company, Connecticut Department of Public*

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- To the extent that Sprint’s systems fail to allow FDN to submit error-free Local Service Requests (“LSRs”) that other commercial systems, such as orbitz.com, are capable of achieving, this is a shortcoming of Sprint’s systems for which FDN should not be penalized in the form of higher NRCs.¹¹
- FDN should not be responsible for order “fall out” due to errors in Sprint’s databases and FDN should not pay for such fall out in the form of higher NRCs.¹²
- The FCC and other Commissions have found that the costs of disconnects should be assessed when this activity occurs and not upfront, which only serves to unnecessarily raise barriers to entry.¹³

Utility Control Docket No. 97-0410, Order, 1998 WL 324224, *46 (May 20, 1998); *Proceeding on Motion of the Commission to Examine New York Telephone Company’s Rates for Unbundled Network Elements*, Case No. 98-C-1357, Order on Unbundled Network Element Rates at 93-95, 140 (N.Y. P.S.C. Jan. 28, 2002).

¹¹ This conclusion is confirmed by the FCC in its *Virginia Arbitration Order* (¶ 592) where the FCC found:

We also find that it is reasonable to assume, as AT&T/WorldCom do, that competitive LEC orders that have errors are returned electronically to the competitive LEC and resubmitted and that manual intervention by Verizon at the ordering stage should be unnecessary. We do not agree with Verizon that competitive LECs should pay NRCs that reflect manual handling of all orders for six or more lines.

¹² See *Virginia Arbitration Order*, ¶ 592: “We also *disagree* with Verizon that costs associated with *database errors* are appropriately recovered from competitive LECs through NRCs. Database maintenance is a recurring cost that should be recovered in recurring charges through ACFs, and not through a NRC” (emphasis added). This position had previously been adopted by some state Commissions, including the Illinois Commerce Commission. See, ICC Docket No. 98-0396, Commission Analysis and Conclusions, at 39 - 42.

1 • Finally, we will carefully scrutinize work time estimates prepared by
2 so-called “subject matter experts.” Any labor time estimates that are
3 based on unsupported subject matter expert estimates without a more
4 sophisticated and systematic analysis underlying those estimates
5 should be rejected.

6 We will probe al of these issues in discovery and report on them in our
7 rebuttal testimony.

8 **VI. GEOGRAPHIC DEAVERAGING**

9 **Q. WHAT IS YOUR RECOMMENDATION WITH RESPECT TO**
10 **DEAVERAGING?**

11 A. Sprint should be required to apply its rate-banding algorithm uniformly to all
12 UNE rate elements it proposes to deaverage. The UNE rate elements should
13 have an appropriate number of rate bands and banding must be set to
14 maximize both competitive entry and administrative convenience. Last, but
15 not least, the rate zones should not be chosen so that the low cost UNEs are
16 found in but a handful of wire centers—this defeats the purpose of the FCC’s
17 de-averaging requirements.

¹³ *Virginia Arbitration Order* in paragraph 596. The FCC finds: “We agree with AT&T/WorldCom that disconnect costs, if any, should be recovered *at the time of disconnection*” (emphasis added).

1 Q. IS THERE A “RULE-OF-THUMB” THAT THE COMMISSION
2 SHOULD USE WHEN DECIDING WHEN AND HOW TO
3 ESTABLISH DEAVERAGED RATES?

4 A. Yes. The Commission should keep in mind that economic efficiency will be
5 best served when the rates charged for gaining access to a particular UNE
6 most closely match the costs associated with making the particular UNE
7 available. The more the underlying costs supporting a given rate are
8 averaged across a larger geographic area or across individual facilities (i.e.,
9 loops in different geographic locations) with disparate underlying costs, the
10 more likely the cost differences between individual facilities (and the UNEs
11 they support) will be “hidden.” In other words, the cost differences will not
12 be evident within the rate, and proper market incentives will be distorted. As
13 a general rule, the Commission should favor more extensive geographic
14 deaveraging rather than less geographic deaveraging, but we recognize that
15 considerations of administrative convenience weigh against creating too
16 many deaveraged zones.

17 Q. IS ECONOMIC EFFICIENCY BETTER SERVED WITH GREATER
18 DEAVERAGING?

19 A. Yes. Society’s resources are more efficiently allocated when prices are set to
20 recover only the underlying incremental costs incurred in providing the
21 service. Prices set in this fashion provide information and incentives to
22 buyers and sellers that allow them to make proper “build versus buy” and
23 other decisions concerning consumption and production. Where prices are

1 set to recover costs associated with providing an unbundled element and
2 facilities already exist that can be used to provide service to a customer, a
3 facilities buyer can make a reasonable determination whether it would be
4 more efficient (i.e. cheaper) to buy that network element for use in serving
5 the customer or to build a facility to serve that customer. In this way, the
6 CLEC is provided the information necessary to make a rational decision as to
7 whether it should build or buy the network element. As a result of making a
8 decision in its own best economic interest, the CLEC is also making a
9 decision in society's best interest (i.e., the CLEC is foregoing the deployment
10 of societal resources that would be unnecessarily deployed given the
11 availability of Sprint's existing facility).

12 **Q. WOULD HIGH-COST CUSTOMERS BEING SUBSIDIZED BY**
13 **LOW-COST CUSTOMERS RESULT IN LESS COMPETITION AS A**
14 **WHOLE?**

15 A. Yes. There are substantial fixed costs associated with beginning a
16 competitive telecommunications enterprise. In addition, competitors have
17 limited resources available, after incurring these substantial upfront costs, to
18 be used to attract customers. Carriers can only hope to compete with an
19 incumbent in the long term by generating economies of scale and scope that
20 bring its average, per-unit-cost of providing service down to a level
21 comparable with the incumbent's (which already realizes economies of scale
22 and scope associated with serving almost 100% of the customers in its
23 particular service territory). Hence, when rates for essential network

1 elements in low-cost areas are priced higher than they should be because of
2 overly averaged rates, the customers which competitors are most likely to
3 attract initially for purposes of gaining economies of scale and scope
4 (because they can be served with the least amount of additional marginal
5 outlay) are sheltered from competition by the fact that the costs of serving
6 those customers are higher than they should be.

7 **Q. ARE THERE OTHER PROBLEMS THAT OCCUR WHEN RATES**
8 **FOR UNBUNDLED NETWORK ELEMENTS ARE SET AT AN**
9 **OVERLY AVERAGED LEVEL?**

10 A. Yes. Competitors will be charged rates for UNEs that are largely unrelated to
11 the costs incurred by the ILEC to provide them. Therefore, competitors may
12 find themselves in a position in which incumbents have the ability to
13 significantly undercut them. Sprint, for example, could reduce its retail
14 prices in high-density, low-cost areas to levels that are less than the average
15 rates that competitors pay for UNEs required to provide their competing
16 services. In such an instance, Sprint may not necessarily be charging prices
17 below its own costs, but would be charging retail prices below the overly
18 averaged rate levels its competitors must pay to compete. This is exactly the
19 situation that Congress was attempting to avoid when it established that rates
20 for access to UNEs must be set in a nondiscriminatory and cost-based fashion
21 (see Section 251(c)(3) of the Telecommunications Act of 1996 (“the Act”).

1 A deaveraging methodology that results in a minimal number of wire centers
2 and access lines in zones where the lowest rates are available does not
3 promote competition.

4 It is likewise important that zone allocations be set in a manner that
5 promotes competitive entry. Maximizing the number of rate centers in low
6 cost zones will accomplish just that. In the current Sprint rates, only four
7 wire centers are allocated to the lowest cost zone, making competitive entry
8 in the rest of Sprint's territory nearly impossible.

9 **VII. CONCLUSION**

10 **Q: DOES THAT CONCLUDE YOUR TESTIMONY?**

11

12 **A:** Yes.

13

Sidney L. Morrison



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Current Position

Senior Consultant, QSI Consulting, Inc.

December 2000 to Present

Professional Experience

DiAx Telecommunications
Zurich, Switzerland

Project Coordinator, Operations Support Systems
Senior Consultant

OSP Consultants
Denver, Colorado

Central Office Equipment Engineer
Nextlevel 3 VDSL Broadband

Competitive Strategies Group Inc
Chicago Illinois

Technical Consultant
Microwave facilities analysis

CDI Telecommunications
Denver, Colorado

Collocation Engineer
Telecommunications Engineer Training
Central Office Engineer
Outside Plant Engineer

Binariang Sdn. Bhd.
Kuala Lumpur, Malaysia

Senior Manager, Network Operations
Fixed Network Facilities Service Center
GSM Facilities Consultant

Power Engineers
Denver, Colorado

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Outside Plant Engineering Consultant

Tele-Matic Corporation
Englewood, Colorado

Director Data Services

US WEST
Denver, Colorado

Manager

Southern Bell
Charlotte, North Carolina

Cable Splicer
Central Office Technician
Special Services Technician

United States Air Force
Lowery Air Force Base, Denver, Colorado

Nuclear Weapons/Reentry Vehicle Technician

Computing Skill Set

Hardware Experience: Mini-Computers, Personal Computers, Expansion Devices, Client Server, Workstations, HP Scanners, Novell & Lantastic Networks

Software Application Experience: CAD Applications COEFM, CIMAGE, CPD, TIRKS, COSMOS, LFAC, DOS, OS/2 2.0/Warp 3.0, UNIX, REXX programming language, Paradox, Dbase III, MS Word/Excel/Project, Visio, Wordperfect 6.0 DOS and Windows 3.X, Windows 95, 98 2000 & NT, Harvard Graphics, Pagis, XTALK, ProCom, Application script files

Areas of Expertise

DiAx Telecommunications; Zurich, Switzerland
Project Coordinator/Manager

May 1999 to December 2000

- Responsible for the development of customer requirements for the Lucent fault management systems; Network Fault Manager (NFM), Actiview and Trouble Manager as an integrated system for diAx
- Managed the project to completion within the allocated budget and time frames
- Developed and implemented business processes to support provisioning and maintenance of IP-VPN data services
- Planned and implemented the diAx Internet Provider Operations Center
- Trained internet engineers on the processes and detail engineering required for telecommunications central office based infrastructure

OSP Consultants Inc.; Phoenix, AZ /Sterling, VA.
Consultant; CO transmission engineer

October 1998 to May 1999

- Provide CO engineering for Very High Bit Rate Digital Subscriber Line Carrier (VDSL) utilizing Nextlevel 3 Broadband Data Terminal equipment, including, floor plan equipment placement, cable racking, power, and

Sidney L. Morrison



integration into outside plant (OSP) facilities and distribution networks

- Project manager CO VDSL installation, procurement and Central Office Equipment Facilities Management (COEFM) engineering process, MOP development, CO installation Design Work Package
- Provide source information on quality control for CO installers
- Provide input information for TIRKS Equipment & Facilities records
- Maintain project progress reports for customer

Competitive Strategies Group; Chicago, IL / Denver, CO

October 1998 to May 1999

Consultant: Competitive Local Exchange Carrier (CLEC) Operations & Engineering

- Technical analysis of network facilities & switching (microwave, fiber & Nortel switches)
- Network operations analysis and procedures recommendations for CLEC operators

CDI; Englewood, CO

October 1997 to September 1998

Consultant: Outside Plant Engineering

- OSP design engineer; facility placement, copper/fiber/field Electronics
- OSP Facility distribution makeup engineering
- Maintain mechanized records systems for CO and OSP
- Common Systems Planning and Engineering (CSPEC): Power/Frames/Cable Rack/Floor Space/CLEC Collocation Planner
- Training course development and presentation for new hire CO/OSP engineers
- Courses developed and presented, Basic Conventional Communications, CO Switching, OSP Design, Numbering & Routing, for fixed networks and wireless

Binariang Sdn. Bhd., Subang Hi-Tech, Shah Alam, Malaysia

December 1995 to June 1997

Senior Manager: Network Operations, Fixed Network Facilities Service Center (FSC) & GSM Facilities Consultant

- Project Managed the planning and implementation of the fixed network provisioning organization including installation and maintenance, assignment and repair organization for telephony, CATV and data
- Project managed the implementation of GTE World Win OSS for provisioning & maintenance of fixed network & CATV
- Developed fixed network operations acceptance criteria for Copper Cables, Hybrid Fiber Coaxial (HFC) Facilities, Subscriber Line Carrier (SLC), Remote Switching Systems (RSS) and Community Antenna Television (CATV) nodes
- Developed operations requirements for switched and leased line services
- Planned, wrote and implemented Southeast Asia's first telecommunications ISO 9002 process for fixed network operations
- Project managed the implementation of an operations field support group for Hybrid Fiber Coaxial (HFC) network

Binariang Sdn. Bhd., Subang Hi-Tech, Shah Alam, Malaysia

May 1995 to December 1995

Consultant: Network Operations GSM facilities Consultant

- Project managed the development and implementation of contractor specifications for Global System for Mobile Communications (GSM) and Base Transceiver Site (BTS) construction (cabin, cabinet, tower, pad, cable racking, antenna attachment hardware, grounding, lightning protection, UPS power and electrical)
- Trained contractors and local managers on specifications and quality requirements for site acceptance
- Developed acceptance check list and performed acceptance on the first sixty GSM/BTS sites

Power Engineers

March 1995 to May 1995

Consultant: Outside Plant Engineering

- Facility design and placement
- Customer service request analyst

Tele-Matic Corporation

February 1993 to November 1994

Director: Data Service

- Planned and directed the activities of the data center department including 2 managers and 10 data center technicians
- Coordinated Automatic Message Accounting (AMA) billing activities with Tele-Matic partners i.e. AT&T, U S WEST, Bell Atlantic, South Western Bell, and other RBOCs for inmate type telephone services
- Negotiated AMA data structures, quality and timely delivery for billing systems

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- Developed automation concepts for data services software systems
- Planned and directed the implementation of advanced architecture (intelligent networks, servers & workstations)

U S WEST August 1988 to January 1993

Manager: Teleprocessing

- Managed AMA Teleprocessing activities for the U S WEST fourteen state region
- Planned the consolidation of operating centers from seven to four
- Project managed the development and implementation of the U S WEST Oasis network operations support system for AMA
- Directed and managed the activities of PC support personnel
- Provided technical support for the corporate legal department

U S WEST February 1985 to July 1988

Manager: Switching Control Center Corporate Support

- Project managed the selection and implementation of switching maintenance and provisioning operational support system
- Provided technical support for Network Switching Control Centers and Essential Power Systems
- Managed the development of switch operations support systems for center operations
- Directed the activities of 12 staff subordinates responsible for switch vendor specific electronic switching support

U S WEST June 1978 to January 1985

Manager: Network Switching

- Managed U S WEST central office operations responsible for data, special services and local service provisioning
- Project manager for the Denver Curtis Park Area Cut, approximately 30K lines and 12K special services cut from two central office areas
- Planned and implemented new Main Distributing Frame technology in the Denver Main Wire Center
- Operations consultant for U S WEST land use study and business case for southeast Denver metropolitan area
- 16 direct report supervisors and 115 technicians

U S WEST December 1972 to May 1978

Manager: Network Operations

- Supervised central office mainframe operations responsible for local and special services provisioning
- Project manager for the Denver Capital Hill Area Cut, approximately 18K lines & 8K Special Services cut

Mountain Bell/Southern Bell November 1966 to November 1972

Technician: Switching Services

- Special Services Data Technician, Central Office Technician, Cable Splicer and Cable Helper

United States Air Force September 1961 to April 1965

- Nuclear Weapons Technician (Reentry Vehicles) Honorable Discharge

Testimony Profile and Experience

Before the State of New Jersey Board of Public Utilities

Docket No. T00060356

In the Matter of the Review of Unbundled Network Elements Rates Terms and Conditions of Verizon – New Jersey

On behalf of WorldCom, Inc.

Before the Wisconsin Public Service Commission

Docket No. 6720-T1-161

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Investigation Into Ameritech Wisconsin's Unbundled Network Elements
On behalf of AT&T communications of Wisconsin, TCG Milwaukee, MCI WorldCom, Inc., McLeodUSA
Telecommunications Services, Inc., Rhythms Links, Inc., TDS Metrocom, Time Warner telecom, KMC Telecom, Inc.

Before the Public Service Commission of Wyoming

Docket No. 700000-TA-00-599 (Record No. 5924)

In The Matter of the Application of Qwest Corporation Regarding Relief Under Section 271 of the Federal
Telecommunications Act of 1996, Wyoming's Participation in a Multi-State Section 271 Process, and Approval of
Qwest's Statement of Generally Available Terms and Conditions

On behalf of Covad Communications Company, Rhythms Links, Inc., New Edge Networks, Inc.

Before The Arizona Corporation Commission

DocketNo.T-000000A-00-0194, Phase II --A

In The Matter Of The Investigation Into Qwest Corporation's Compliance With Certain Wholesale Pricing Requirements
for Unbundled Network Elements And Resale Discounts

On behalf of WorldCom, Inc.

Before The Public Utilities Commission of The State Of Colorado

Docket no. 99A-577T

In The Matter Of U S WEST Communications, Inc.'s Statement Of Generally Available Terms And Conditions

On behalf of Covad Communications Company, Rhythms Links, Inc., New Edge Networks, Inc.

Before The Commonwealth Of Massachusetts Department Of Telecommunications And Energy

Docket No. D.T.E. 01-20

In the Matter Of Investigation by the Department on its own Motion Into the Appropriate Pricing, based upon Total
Element Long-Run Incremental Costs, for Unbundled Network Elements and Combinations of Unbundled Network
Elements, and the Appropriate Avoided Cost Discount for Verizon New England Inc., d/b/a Verizon Massachusetts'
Resale Services

On behalf of Allegiance Telecom of Massachusetts, Inc., Covad Communications, Company, El Paso Networks, LLC,
and Network Plus, Inc. (collectively called the "CLEC Coalition")

Before The Washington Utilities And Transportation Commission

Docket No. UT-003013

In The Matter of: The Continued Costing and Pricing of Unbundled Network Elements, Transport, Termination and
Resale

On behalf of WorldCom, Inc.

Before The Florida Public Service Commission

Docket No. 990649B-TP

In The Matter of: Investigation Into Pricing Unbundled Network Elements

On behalf of the ALEC Coalition

Before The Indiana Utility Regulatory Commission

Docket No. 40611-S1

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

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On behalf of AT&T Communications of Indiana, GP and TCG Indianapolis, WorldCom, Inc., McLeodUSA Telecommunications Services, Inc.

Before the New Mexico Public Regulation Commission

Utility Case No. 3495, Phase B

In The Matter of the consideration of costing and pricing rules for OSS collocation, shared transport, nonrecurring charges, spot frames combination of network elements and switching.

On behalf of The Public Regulation Commission Staff

Before the State Of North Dakota Public Service Commission

Case No. PU-2342-01-296

In the matter of: Qwest Corporation Interconnection/Wholesale Price Investigation.

On behalf of US Link, Inc., 702 Communications, McLeodUSA Telecommunications, and IdeaOne Telecom Group

Before The Public Utilities Commission Of The State Of South Dakota

Docket No. TC01-098

In The Matter, Of Determining Prices For Unbundled Network Elements (UNEs) In Qwest Corporation's Statement Of Generally Available Terms (SGAT).

On Behalf Of The Staff Of The Public Utilities Commission Of South Dakota

Due Diligence Project

In The Matter, Technical Analysis Central Office Operations Southfield Technicenter LLC

On Behalf Of Luna Entertainment

Before The Illinois Commerce Commission

Docket No. 02-0864

In The Matter of: Illinois Bell Telephone Company, Filing To Increase Unbundled Loop And Nonrecurring Rates (Tariffs Filed December 24, 2002),

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.

Before The STATE OF INDIANA UTILITY REGULATORY COMMISSION

Cause No. 42398

In The Matter, Complaint of Nuvox Communications of Indiana, Inc., Against SBC Indiana Regarding its Unlawful Billing Practices for Collocation Power Charges

On Behalf Of Nuvox Communications Of Indiana, Inc.

Before The Indiana Utility Regulatory Commission

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 Statues

On Behalf of WorldCom, Inc. ("MCI") McLeodUSA Telecommunications Services, Inc., Covad Communications Company, Z-Tel Communications, Inc.

Report on AT&T Collocation Site Power Audits in Ohio

Docket No. 03-802-TP-CSS

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In The Matter, In Response to the Nuvox Complaint Regarding SBC Collocation Power Charges
On Behalf of AT&T

Before The Michigan Public Service Commission

Case No. U-13531

In The Matter, On The Commission's Own Motion, To Review The Costs Of Telecommunications Services
Provided By SBC Michigan

On Behalf of MCImetro Access Transmission Services LLC, MCI WorldCom Communications, Inc., and Brooks
Fiber communications of Michigan, Inc. ("MCI")

Before The State Of New York Public Service Commission

CASE 02-C-1425

In The Matter, Proceeding on Motion of the Commission to Examine the Process, and Related Costs of
Performing Loop Migrations on a More Streamlined (e.g., Bulk) Basis.

On Behalf of Conversent Communications of New York, LLC

Before The State Of New Jersey Board Of Public Utilities

Docket No. TO03090705

In the Matter, The Implementation Of the Federal Communications Commission's Triennial Review Order
On Behalf of Conversent Communications of New Jersey, LLC

Before The State Of Rhode Island And Providence Plantations Public Utilities Commission

Docket Nos. 3550 and 2861

In The Matter, Implementation of the Requirements of the FCC's Triennial Review Order ("TRO")

On Behalf of Conversent Communications of Rhode Island, LLC

Before The Maryland Public Service Commission

Case No. 8988

In The Matter, The Implementation Of The Federal Communication Commission's Triennial Review Order.
On Behalf of Cavalier Telephone, LLC

Before The Commonwealth Of Massachusetts Department Of Telecommunications And Energy

D.T.E. 03-60

Proceeding by the Department on its own Motion to Implement the Requirements of the Federal Communications
Commission's Triennial Review Order Regarding Switching for Mass Market Customers

On Behalf of Conversent Communications of Massachusetts, LLC

Before The Federal Communications Commission, Washington, D.C.

WC Docket No. 04-313

CC Docket No. 01-338

In the Matter of Unbundled Access to Network Elements. Review of Section 251 Unbundling Obligations of
Incumbent Local Exchange Carriers.

On Behalf of MCI, Inc.

Before The New Mexico Public Regulation Commission

Case No. 04-00237-UT

In The Matter Of The Investigation Of Whether Qwest Corporation Is In Compliance With The Amended Alternative
Form Of Regulation Plan

Warren R. Fischer, CPA

**Director of Business Services and Research
QSI Consulting, Inc.**

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Biography

Mr. Fischer is a QSI partner and currently serves as Director of Business Services and Research in QSI's Telecommunications Division. Mr. Fischer has over ten years of experience in the telecommunications industry and joined QSI after five years of service within AT&T's Local Service & Access Management and Wireless Services divisions. During his telecommunications career, Mr. Fischer has focused his attention largely on TELRIC pricing, local market entry, Section 271 compliance, access and universal service reform issues and damages assessment.

Mr. Fischer is an experienced and effective expert witness and has provided expert testimony before 14 state utility commissions and other administrative agencies. Mr. Fischer is an active Certified Public Accountant who is licensed in the States of Colorado and California. Mr. Fischer's professional experience as a C.P.A. includes two years in public practice with Deloitte and Touche LLP and over 17 years of managing financial analysis, reporting and forecasting processes for various multi-national corporations.

Educational Background

Bachelor of Science, Business Administration (emphasis in Accounting)
University of Colorado at Boulder, Boulder, Colorado 1984





Professional Experience

QSI Consulting, Inc.
2000 - Current
Director of Business Services and Research

AT&T Corp.
1997 – 2000
Financial Manager
1996 – 1997
Supervisor
Network Services Division

AT&T Wireless Services
1995 - 1996
Marketing Analyst / Planner
Cellular Division

E. & J. Gallo Winery
1994 – 1995
Senior Financial Analyst
1991 – 1994
Operations Accountant

Century 21 Real Estate Corporation
1987 - 1991
Financial Analyst

Deloitte & Touche LLP
1985 – 1987
Audit-in-Charge

Expert Testimony – Profile

The information below is Mr. Fischer'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 Federal Communications Commission **File Nos. EB-01-MD-001 and EB-01-MD-002**

In the matter of the formal complaints of AT&T corp. and Sprint Communications Company L.P., vs. Business Telecom, Inc.

On behalf of Business Telecom, Inc.
Affidavit

February 23, 2001

Before the Public Utilities Commission of the State of Colorado **Docket No. 99A-161T**

In the matter of the application of U S WEST Communications, Inc., to reduce business basic exchange and long-distance revenues upon receipt of the Colorado high-cost support mechanism in accordance with Decision No. C 99-222

On behalf of AT&T Communications of the Mountain States, Inc.
Direct

August 6, 1999

Before the Public Utilities Commission of the State of Colorado **Docket No. 98A-068T**

In the matter of the application of U S WEST Communications, Inc., to restructure and reduce switched access rates pursuant to the stipulation in Docket No. 97A-540T

On behalf of AT&T Communications of the Mountain States, Inc.
Amended Direct

May 17, 1999

Supplemental

June 9, 1999

Before the Public Service Commission of Florida **Docket No. 990649B-TP**

In re: investigation into pricing of unbundled network elements

On Behalf AT&T Communications of the Southern States, Inc., MCImetro Access Transmission Services, LLC & MCI WorldCom Communications, Inc., and Florida Digital Network, Inc. (collectively called the "ALEC Coalition")

Rebuttal

January 30, 2002

Before the Illinois Commerce Commission

Docket No. 02-0864

Illinois Bell Telephone Company: Filing to increase unbundled loop and nonrecurring rates (tariffs filed December 24, 2002)

On behalf of AT&T Communications of Illinois, Inc., WorldCom, Inc. ("MCI"), 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., and CIMCO Communications, Inc.

Direct

May 6, 2003

Rebuttal

January 20, 2004

Surrebuttal

February 20, 2004

Supplemental Surrebuttal

May 5, 2004

Before the Indiana Utility Regulatory Commission

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 AT&T Communications of Indiana, G.P. and TCG Indianapolis ("AT&T"), WorldCom, Inc. ("MCI"), McLeodUSA Telecommunications Services, Inc., Covad Communications Company, and Z-Tel Communications, Inc.

Response

August 15, 2003

Before the Public Service Commission of Maryland

Case No. 8879

In the matter of the investigation into rates for unbundled network elements pursuant to the Telecommunications Act of 1996

On Behalf of the Staff of the Public Service Commission of Maryland

Rebuttal

September 5, 2001

Supplemental Rebuttal

October 4, 2001

Surrebuttal

October 15, 2001

Before the Massachusetts Department of Telecommunications and Energy

Docket DTE 01-20

Investigation by the department on its own motion into the appropriate pricing, based upon total element long-run incremental costs, for unbundled network elements and combinations of unbundled network elements, and the appropriate avoided cost discount for Verizon New England Inc., d/b/a Verizon Massachusetts' resale services

On Behalf of the CLEC Coalition

Rebuttal

July 17, 2001

Before the Michigan Public Service Commission

Case No. U-13531

In the matter, on the commission's own motion, to review the costs of telecommunications services provided by SBC Michigan

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

Initial

January 20, 2004

Final Reply

May 10, 2004

Before the Michigan Public Service Commission

Case No. U-11756

In the matter of the complaint of Michigan Pay Telephone Association et al. Against Ameritech Michigan and Verizon North Inc., f/k/a GTE North Incorporated

On behalf of Michigan Pay Telephone Association and the other payphone service provider Complainants

Direct

February 10, 2003

Before the Public Service Commission of the State of Montana

Docket No. D97.5.87

IN THE MATTER OF the Investigation into U S WEST Communications, Inc.'s Compliance with Section 271(c) of the Telecommunications Act of 1996

On behalf of AT&T Communications of the Mountain States

Direct

June 1998

Rebuttal

June 1998

Supplemental Rebuttal

November 1998

Before the Public Service Commission of the State of Montana

Docket No. D96.12.220

IN THE MATTER of the Application of U S WEST Communications, Inc. to Restructure its Prices for Regulated Telecommunications Service.

On behalf of AT&T Communications of the Mountain States, Inc.

Direct

October 1997

Before the Nebraska Public Service Commission

Application No. C-1628

In the matter of the Nebraska Public Service Commission, on its own motion, seeking to conduct an investigation into intrastate access charge reform and intrastate universal service fund

On behalf of AT&T Communications of the Midwest, Inc.

Direct

October 20, 1998

Before the Nebraska Public Service Commission

Application No. C-1830

In the Matter of US West Communications, Inc., filing its notice of intention to file Section 271(c) application with the FCC and request for Commission to verify US West compliance with Section 271(c)

On behalf of AT&T Communications of the Midwest, Inc.

Direct and rebuttal

August 1998

Before the Nebraska Public Service Commission

Docket No. C-1519

In the matter of the emergency petition of MCI Telecommunications Corporation and AT&T Communications of the Midwest, Inc. to investigate compliance of Nebraska LECs with FCC payphone orders

On behalf of AT&T Communications of the Midwest, Inc.

Direct

January 20, 1998

Before the New Mexico State Corporation Commission

Docket No. 96-310-TC and Docket No. 97-334-TC

In the matter of the consideration of the adoption of a rule concerning costing methodologies and In the matter of the implementation of new rules related to the rural, high-cost, and low-income components of the New Mexico universal service fund

On behalf of AT&T Communications of the Mountain States, Inc.

Direct

July 8, 1998

Rebuttal

August 5, 1998

Before the New Mexico State Corporation Commission

Docket No. 97-106-TC

In The Matter Of Qwest Corporation's Section 271 Application And Motion For Alternative Procedure To Manage The Section 271 Process

On behalf of AT&T Communications of the Mountain States, Inc.

Direct

July 1998

Rebuttal

July 1998

Reply

September 1998

Before the New Mexico State Corporation Commission

Docket No. 97-69-TC

On behalf of AT&T Communications of the Mountain States, Inc.

Direct

March 20, 1997

Before the North Carolina Utilities Commission

Docket No. P-100, Sub 133d, Phase I

In the matter of general proceeding to determine permanent pricing for unbundled network elements

On Behalf of New Entrants

Direct

August 11, 2000

Before the Public Service Commission of the State of North Dakota

Docket No. PU-314-97-465

In the matter of U S WEST Communications, Inc., universal service costs investigation

On behalf of AT&T Communications of the Midwest, Inc.

Rebuttal

February 27, 1998

Before the Public Service Commission of Wisconsin

Docket No. 6720-TI-187

Petition of SBC Wisconsin to determine rates and costs for unbundled network elements

On behalf of AT&T Communications of Wisconsin, L.P. and TCG Milwaukee ("AT&T"), and MCI, Inc.

Rebuttal

June 15, 2004

Before the Wyoming Public Service Commission

Docket No. 70000-TA-98-442

In the matter of the second application of U S WEST Communications, Inc., for a finding that its interexchange telecommunications services are subject to competition

On behalf of AT&T Communications of the Mountain States, Inc.

Direct

January 6, 1999

Before the Wyoming Public Service Commission

Docket No. 70000-TR-98-420

In the matter of the application of U S WEST Communications, Inc., for authority to implement price ceiling in conjunction with its proposed Wyoming price regulation plan for essential and noncompetitive telecommunication services

On behalf of AT&T Communications of the Mountain States, Inc.

Direct

September 9, 1998



Before the Wyoming Public Service Commission

General Order No. 81

In the matter of the investigation by the Commission of the feasibility of developing its own costing model for use in determining federal universal service fund support obligations in Wyoming

On behalf of AT&T Communications of the Mountain States, Inc.

Direct

November 1997

Amended Direct

January 23, 1998

Rebuttal

February 6, 1998

Before the Wyoming Public Service Commission

Docket No. 72000-TI-97-107 and Docket No. 70000 TI-97-352

In the matter of the petition of AT&T for the Commission to initiate investigation of U S WEST Communications, Inc.'s compliance with Section 271 of the Telecommunications Act of 1996

On behalf of AT&T Communications of the Mountain States, Inc.

Direct

1998

Before the Wyoming Public Service Commission

Docket No. 72000-TC-97-99

On behalf of AT&T Communications of the Mountain States, Inc.

Direct

May 15, 1997

Before the Wyoming Public Service Commission

Docket No. 70007-TR-95-15

On behalf of AT&T Communications of the Mountain States, Inc.

Adopted Pre-filed Direct

October 1996

Selected Reports, Presentations and Publications

QSI Final Report to the Hawaii Public Utilities Commission "Analysis and Recommendations Related to Docket No. 04-0140 *Merger Application Of Paradise Mergersub, Inc. (n/k/a Hawaiian telecom Mergersub, Inc.), Verizon Hawaii, Inc. and Related Companies*" February 7, 2005

QSI Technical Report No. 012605A "IP-Enabled Voice Services: Impact of Applying Switched Access Charges to IP-PSTN Voice Services"

Ex Parte filing in FCC dockets WC Dockets No. 04-36 (In the Matter of IP-Enabled Services), 03-266 (In the Matter of Level 3 Communications LLC Petition for Forbearance Under 47 U.S.C. § 160(c) from Enforcement of 47 U.S.C. § 251(g), Rule 51.701(b)(1), and Rule 69.5(b); IP Enabled Services)
Washington DC, January 27, 2005

QSI Report to the Wyoming Legislature "The Wyoming Universal Service Fund. *An Evaluation of the Basis and Qualifications for Funding*" December 3, 2004

QSI Audit Report to the Wyoming Public Service Commission on the "Wyoming Universal Service Fund from October 28, 1999 through December 31, 2001" May 15, 2002

Curriculum Vitae
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I am an economist and consultant, specializing in public utility regulation. In this capacity, I have provided consulting services in the major telecommunications markets of the United States, such as New York, Texas, Illinois, Michigan, Tennessee, Georgia, and in a variety of smaller states. My consulting activities focus mostly on telecommunications regulation. Specifically, I work with large corporate clients, such as MCIWorldCom, AT&T, AT&T Wireless, and a variety of smaller competitive local exchange carriers and PCS providers. I have represented these clients before state and federal regulatory agencies in various proceedings concerning the introduction of competition in telecommunications markets. Recently, these proceedings focus largely on the implementation of the pro-competition provisions of Telecommunications Act of 1996.

Professional experience:

My professional background includes work experiences in private industry and state government. I have worked for MCI Telecommunications Corporation ("MCI") as a senior economist. At MCI, I provided expert witness testimony and conducted economic analyses for internal purposes. Prior to joining MCI in early 1995, I worked for Teleport Communications Group, Inc. ("TCG"), as a Manager in the Regulatory and External Affairs Division. In this capacity, I testified on behalf of TCG in proceedings concerning local exchange competition issues. From 1986 until early 1994, I was employed as an economist by the Public Utility Commission of Texas ("PUCT") where I worked on a variety of electric power and telecommunications issues. During my last year at the PUCT I held the position of chief economist. Prior to joining the PUCT, I taught undergraduate courses in economics as an Assistant Instructor at the University of Texas from 1984 to 1986.

Education:

I received a Ph.D. in Economics from the University of Texas at Austin in 1992, an M.A. in Economics from the University of Texas at Austin in 1987, and a B.A. in Economics from Quincy College, Illinois, in 1982.

PROCEEDINGS IN WHICH DR. ANKUM HAS FILED EXPERT WITNESS TESTIMONY:

New York

Commission Investigation into Resale, Universal Service and Link and Port Pricing, New York Public Service Commission, Case Nos. 95-C-0657, 94-C-0095, and 91-C-1174, July 4, 1996. On behalf of MCI Telecommunications Corporation.

In the Matter of Proceeding on Motion of the Commission To Reexamine Reciprocal Compensation, New York Public Service Commission, Case 99-C-0529. Direct Testimony, July 1999. On Behalf Of Cablevision LightPath, Inc.

Proceeding on the Motion of the Commission To Examine New York Telephone Company's Rates for Unbundled Network Elements, New York Public Service Commission, Case 98-C-1357. Direct Testimony, October 1999. On behalf of Corecomm New York, Inc.

Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements, New York Public Service Commission Case 98-C-1357, Direct Testimony, June 2000, on behalf of MCIWorldCom.

California

Joint Application of AT&T Communications of California, Inc. (U 5002 C) and WorldCom, Inc. for the Commission to Reexamine the Recurring Costs and Prices of Unbundled Switching in Its First Annual Review of Unbundled Network Element Costs Pursuant to Ordering Paragraph 11 of D.99-11-050. Consolidated dockets. Reply testimony, February 2003. On behalf of ATT and MCI.

Connecticut

DPUC Investigation of Intrastate Carrier Access Charges, Docket No. 02-05-17. Rebuttal testimony, June 2003. On behalf of AT&T and MCI.

Florida

Investigation into Pricing of Unbundled Network Elements, Docket No. 990649B-TP. January, 2002. Filed on behalf of AT&T Communications of the Southern States, Inc. MCImetro Access Transmission Services, LLC & MCI WorldCom Communications, Inc. Florida Digital Network, Inc. (collectively called the "ALEC Coalition").

New Jersey

Petition of Focal Communications Corporation of New Jersey For Arbitration Pursuant to

Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Bell Atlantic – New Jersey Board of Public Utilities, May 2000. On behalf of Focal Communications Corporation of New Jersey.

I/M/O the Board's Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic-New Jersey, Inc. New Jersey Board of Public Utilities, Docket No. TO00060356. 2000. On behalf of WorldCom, Inc.

Delaware

Petition of Focal Communications Corporation of Pennsylvania For Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Bell Atlantic – Delaware, Inc. Delaware Public Service Commission, PSC Docket No. 00-025. Direct Testimony, May 2000. On behalf of Focal Communications Corporation of Pennsylvania.

Texas

Petition of The General Counsel for an Evidentiary Proceeding to Determine Market Dominance, PUC of Texas, Docket No. 7790, Direct Testimony, June 1988. On behalf of the Public Utility Commission of Texas.

Application of Southwestern Bell Telephone Company for Revisions to the Customer Specific Pricing Plan Tariff, PUC of Texas, Docket No. 8665, Direct Testimony, July 1989. On behalf of the Public Utility Commission of Texas.

Application of Southwestern Bell Telephone Company to Amend its Existing Customer Specific Pricing Plan Tariff: As it Relates to Local Exchange Access through Integrated Voice/Data Multiplexers, PUC of Texas, Docket No. 8478, Direct Testimony, August 1989. On behalf of the Public Utility Commission of Texas.

Application of Southwestern Bell Telephone Company to Provide Custom Service to Specific Customers, PUC of Texas, Docket No. 8672, Direct Testimony, September 1989. On behalf of the Public Utility Commission of Texas.

Inquiry of the General Counsel into the Reasonableness of the Rates and Services of Southwestern Bell Telephone Company, PUC of Texas, Docket No. 8585, Direct Testimony, November 1989. On behalf of the Public Utility Commission of Texas.

Southwestern Bell Telephone Company Application to Declare the Service Market for CO LAN Service to be Subject to Significant Competition, PUC of Texas, Docket No. 9301, Direct Testimony, June 1990. On behalf of the Public Utility Commission of Texas.

Petition of Southwestern Bell Telephone Company for Authority to Change Rates, PUC of Texas, Docket No. 10382, Direct Testimony, September 1991. On behalf of the Public Utility Commission of Texas.

Application of Southwestern Bell Telephone Company, GTE Southwest, Inc., and Contel of Texas, Inc. For Approval of Flat-rated Local Exchange Resale Tariffs Pursuant to PURA 1995 Section 3.2532, Public Utility Commission of Texas, Docket No. 14658, January 24, 1996. On behalf of Office of Public Utility Counsel of Texas.

Application of Southwestern Bell Telephone Company, GTE Southwest, Inc., and Contel of Texas, Inc. For Interim Number Portability Pursuant to Section 3.455 of the Public Utility Regulatory Act, Public Utility Commission of Texas, Docket No. 14658, March 22, 1996. On behalf of Office of Public Utility Counsel of Texas.

Application of AT&T Communications for Compulsory Arbitration to Establish an Interconnection Agreement Between AT&T and Southwestern Bell Telephone Company, and Petition of MCI for Arbitration under the FTA96, Public Utility Commission of Texas, Consl. Docket Nos. 16226 and 16285. September 15, 1997. On behalf of AT&T and MCI.

Proceeding to examine reciprocal compensation pursuant to section 252 of the Federal Telecommunications of 1996, Public Utility Commission of Texas, Docket No. 21982. May 2000. On behalf of Taylor Communications.

Proceeding on Cost Issues Severed from PUC Docket 24542, Docket No. 25834. Direct and Rebuttal Testimony. 2002. On behalf of AT&T and MCIMetro.

Iowa

US West Communications, Inc., Iowa Department of Commerce – Utilities Board, Docket No: RPU – 00 – 01. Direct Testimony, July 2000. On behalf of McLeodUSA.

Illinois

Adoption of Rules on Line-Side Interconnection and Reciprocal Interconnection, Illinois Commerce Commission, Docket No. 94-0048. September 30, 1994. On behalf of Teleport Communications Group, Inc.

Proposed Introduction of a Trial of Ameritech's Customer First Plan in Illinois, Illinois Commerce Commission, Docket No. 94-0096. September 30, 1994. On behalf of Teleport Communications Group, Inc.

Addendum to Proposed Introduction of a Trial of Ameritech's Customer First Plan in Illinois, Illinois Commerce Commission, Docket No. 94-0117. September 30, 1994. On behalf of Teleport

Communications Group, Inc.

AT&T's Petition for an Investigation and Order Establishing Conditions Necessary to Permit Effective Exchange Competition to the Extent Feasible in Areas Served by Illinois Bell Telephone Company, Illinois Commerce Commission, Docket No. 94-0146. September 30, 1994. On behalf of Teleport Communications Group, Inc.

Proposed Reclassification of Bands B and C Business Usage and Business Operator Assistance/Credit Surcharges to Competitive Status, Illinois Commerce Commission, Docket No. 95-0315, May 19, 1995. On behalf of MCI Telecommunications Corporation.

Investigation Into Amending the Physical Collocation Requirements of 83 Ill. Adm. Code 790, Illinois Commerce Commission, Docket 94-480, July 13, 1995. On behalf of MCI Telecommunications Corporation.

Petition for a Total Local Exchange Wholesale 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, Illinois Commerce Commission, Docket No. 95-0458, December 1995. On behalf of MCI Telecommunications Corporation.

Citation to Investigate Illinois Bell Telephone Company's Rates, Rules and regulations For its Unbundled Network Component Elements, Local Transport Facilities, and End office Integration Services, Illinois Commerce Commission, Docket No. 95-0296, January 4, 1996. On behalf of MCI Telecommunications Corporation.

In the Matter of MCI Telecommunications Corporation Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish and Interconnection Agreement with Illinois Bell Telephone Company d/b/a Ameritech Illinois, Illinois Commerce Commission, Docket No. 96-AB-006, October, 1996. On behalf of MCI Telecommunications Corporation.

In the Matter of MCI Telecommunications Corporation Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish and Interconnection Agreement with Central Telephone Company of Illinois ("Sprint"), Illinois Commerce Commission, Docket No. 96-AB-007, January, 1997. On behalf of MCI Telecommunications Corporation.

Investigation into forward looking cost studies and rates of Ameritech Illinois for interconnection, network elements, transport and termination of traffic. Illinois Commerce Commission, Docket No. 96-0486, February, 1997. On behalf of MCI Telecommunications Corporation.

Phase II of Ameritech Illinois TELRIC proceeding. Illinois Commerce Commission Docket No. 98-0396, May 2000. On behalf of MCIWorldCom.

Illinois Commerce Commission On its Motion vs Illinois Bell Telephone Company Investigation into Tariff Providing Unbundled Local Switching with Shared Transport, Illinois Commerce

Commission, Docket No. 00- 0700. October 2001. On behalf of AT&T Communications of Illinois, Inc. and WorldCom, Inc.

Massachusetts

NYNEX/MCI Arbitration, Common Wealth of Massachusetts, Department of Public Utilities, D.P.U. 96-83, October 1996. On behalf of MCI Telecommunications Corporation.

Investigation into Pricing based on TELRIC for Unbundled Network Elements and Combinations of Unbundled Networks Elements and the Appropriate Avoided Cost Discount for Verizon New England, Inc. d/b/a Verizon Massachusetts' Resale Services. Massachusetts Department of Energy and Transportation, Docket 01-20. On behalf Allegiance, Network Plus, Inc., El Paso Networks, LLC, and Covad Communications Company. July 2001.

Investigation by the Department of Telecommunications and Energy on its own Motion into the Appropriate Regulatory Plan to succeed Price Cap Regulation for Verizon New England, Inc. d/b/a Verizon Massachusetts' intrastate retail telecommunications services in the Commonwealth of Massachusetts. Massachusetts Department of Energy and Transportation, Docket 01-03. On behalf of Network Plus, Inc., August 2001.

New Mexico

Brooks Fiber Communications of New Mexico, Inc. Petition for Arbitration, New Mexico State Corporation Commission, Docket No. 96-307-TC, December, 1996. On behalf of Brooks Fiber Communications of New Mexico, Inc.

In the matter of the consideration of costing and pricing rules for OSS, collocation, shared transport, non-recurring charges, spot frames, combination of network elements and switching. Direct testimony, September 16, 2002. On behalf of the Commission Staff.

Minnesota

In Re Commission Investigation Of Qwest's Pricing Of Certain Unbundled Network Elements, PUC Docket No. P-442, 421, 3012 /M-01-1916. Rebuttal testimony, April, 2002. on behalf of Otter Tail Telecom, Val-Ed Joint Venture D/B/A 702 Communications, McCleoudUSA, Eschelon Telecommunications, USLink.

Michigan

In the Matter of the Application of City Signal, Inc. for an Order Establishing and Approving Interconnection Arrangements with Michigan Bell Telephone Company, Michigan Public Service Commission, Case No. U-10647, October 12, 1994. On behalf of Teleport Communications Group, Inc.

In the Matter, on the Commission's Own Motion, to Establish Permanent Interconnection Arrangements Between Basic Local Exchange Providers, Michigan Public Service Commission, Case No. U-10860, July 24, 1995. On behalf of MCI Telecommunications Corporation.

In the Matter, on the Commission's Own Motion, to consider the total service long run incremental costs and to determine the prices for unbundled network elements, interconnection services, resold services, and basic local exchange services for Ameritech Michigan, Michigan Public Service Commission, Case No. U-11280, March 31, 1997. On behalf of MCI Telecommunications Corporation.

In the matter of the application under Section 310(2) and 204, and the complaint under Section 205(2) and 203, of MCI Telecommunications Corporation against AMERITECH requesting a reduction in intrastate switched access charges, Case No. U-11366. April, 1997. On behalf of MCI Telecommunications Corporation.

Ohio

In the Matter of MCI Telecommunications Corporation Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish and Interconnection Agreement with Ameritech Ohio, The Public Utilities Commission of Ohio, Case No. 96-888-TP-ARB, October, 1996. On behalf of MCI Telecommunications Corporation.

In the matter of the review of Ameritech Ohio's economic costs for interconnection, unbundled network elements, and reciprocal compensation for transport and termination of local telecommunications traffic, The Public Utilities Commission of Ohio, Case No. 96-922-TP-UNC, Jan 17, 1997. On behalf of MCI Telecommunications Corporation.

In the Matter of the Review of Ameritech Ohio's Economic Costs for Interconnection, Unbundled Network Elements, and Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic. Case No. 96-922-TP-UNC and In the Matter of the Application of Ameritech Ohio for Approval of Carrier to Carrier Tariff. Case No. 00-1368-TP-ATA. Ohio Public Utilities Commission. Direct Testimony, October 2000. On behalf of MCIWorldCom and ATT of the Central Region.

Indiana

In the matter of the Petition of MCI Telecommunications Corporation for the Commission to Modify its Existing Certificate of Public Convenience and Necessity and to Authorize the Petitioner to Provide certain Centrex-like Intra-Exchange Services in the Indianapolis LATA Pursuant to I.C. 8-1-2-88, and to Decline the Exercise in Part of its Jurisdiction over Petitioner's Provision of such Service, Pursuant to I.C. 8-1-2.6., Indiana Regulatory Commission, Cause No. 39948, March 20,

1995. On behalf of MCI Telecommunications Corporation.

In the matter of the Petition of Indiana Bell Telephone company, Inc. For Authorization to Apply a Customer Specific Offering Tariff to Provide the Business Exchange Services Portion of Centrex and PBX Trunking Services and for the Commission to Decline to Exercise in Part Jurisdiction over the Petitioner's Provision of such Services, Pursuant to I.C. 8-1-2.6, Indiana regulatory Commission, Cause No. 40178, October 1995. On behalf of MCI Telecommunications Corporation.

MCI Telecommunications Corporation Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish and Interconnection Agreement with Indiana Bell Telephone Company d/b/a Ameritech Indiana, Indiana Public Utility Regulatory Commission, Cause No. 40603-INT-01, October 1996. On behalf of MCI Telecommunications Corporation.

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, Indiana Public Utility Regulatory Commission, Cause No. 40611. April 18, 1997. On behalf of MCI Telecommunications Corporation.

In the Matter of the Commission Investigation and Generic Proceeding on GTE's Rates for Interconnection, Service, Unbundled Elements, and Transport under the FTA 96 and related Indiana Statutes, Indiana Public Utility Regulatory Commission, Cause No. 40618. October 10, 1997. On behalf of MCI Telecommunication Corporation.

In the matter of the Commission Investigation and Generic proceeding on the Ameritech Indiana's rates for Interconnection, Unbundled Elements, and Transport and Termination Under the Telecommunications Act of 1996 and Related Indiana Statutes, Indiana Utility Regulatory Commission, Cause No. 40611-S1. October 2001. On behalf of WorldCom, Inc., AT&T Communications of Indiana, G.P.

Rhode Island

Comprehensive Review of Intrastate Telecommunications Competition, State of Rhode Island and Providence Plantations Public Utilities Commission, Docket No. 2252, November, 1995. On behalf of MCI Telecommunications Corporation.

Utah

In the Matter of the Determination of the Costs Investigation of the Unbundled Loop of Qwest Corporation, Inc., Docket No. 01-049-85. Rebuttal testimony, August 16, 2002. On behalf of AT&T and WorldCom.

Vermont

Investigation into NET's tariff filing re: Open Network Architecture, including the Unbundling of NET's Network, Expanded Interconnection, and Intelligent Networks, Vermont Public Service Board, Docket No. 5713, June 8, 1995. On behalf of MCI Telecommunications Corporation.

Wisconsin

Investigation of the Appropriate Standards to Promote Effective Competition in the Local Exchange Telecommunications Market in Wisconsin, Public Service Commission of Wisconsin, Cause No. 05-TI-138, November, 1995. On behalf of MCI Telecommunications Corporation.

Matters relating to the satisfaction of conditions for offering interLATA services (Wisconsin Bell, Inc. d/b/a Ameritech Wisconsin) Wisconsin Public Service Commission, 670-TI-120, March 25, 1997. On behalf of MCI Telecommunications Corporation.

In the Matter of MCI Telecommunications Corporation Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Wisconsin Bell, Inc. d/b/a Ameritech Wisconsin, Wisconsin Public Service Commission, Docket Nos. 6720-MA-104 and 3258-MA-101. On behalf of MCI Telecommunications Corporation.

Investigation Into The Establishment of Cost-Related Zones For Unbundled Network Elements, Docket No. 05-TI-349. Rebuttal Testimony, September 2000. On behalf of AT&T Communications of Wisconsin, McLEODUSA Telecommunications Services, Inc., TDS MetroCom, Inc., and Time Warner Telecom.

Investigation into Ameritech Wisconsin's Unbundled Network Elements, PSC of Wisconsin, Docket No. 6720-TI-161, Direct and Rebuttal testimony, 2001. On Behalf Of AT&T Communications of Wisconsin, Inc., WorldCom, Inc., Rhythms Links, Inc., KMC Telecom, Inc., and McLeodUSA ("CLEC Coalition")

Pennsylvania

In Re: Formal Investigation to Examine Updated Universal Service Principles and Policies for telecommunications Services in the Commonwealth Interlocutory order, Initiation of Oral Hearing Phase, Pennsylvania Public Utility Commission, Docket No. I-00940035, February 28, 1996. On behalf of MCI Telecommunications Corporation.

Structural Separation of Verizon, Pennsylvania Public Utility Commission - Docket No. M-0001352. Direct Testimony, October, 2000. On behalf of MCI WorldCom.

Georgia

AT&T Petition for the Commission to Establish Resale Rules, Rates and terms and Conditions and the Initial Unbundling of Services, Georgia Public Service Commission, Docket No. 6352-U, March 22, 1996. On behalf of MCI Telecommunications Corporation.

Tennessee

Avoidable Costs of Providing Bundled Services for Resale by Local Exchange Telephone Companies, Tennessee Public Service Commission, Docket No. 96-00067, May 31, 1996. On behalf of MCI Telecommunications Corporation.

Commonwealth of Puerto Rico

Petition for Arbitration Pursuant to 47 U.S.C. & (b) and the Puerto Rico Telecommunications Act of 1996, regarding Interconnection Rates Terms and Conditions with Puerto Rico Telephone Company, Puerto Rico Telecommunications Regulatory Board, Docket No. 97-0034-AR, April 15, 1997. On behalf of Cellular Communications of Puerto Rico, Inc.