BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska Public Service)	Application No. NUSF-100
Commission, on its own motion, to consider)	PI-193
revisions to the universal service fund)	
contribution methodology.)	

Pre-Filed Initial Testimony of Joseph Gillan on Behalf of Charter Fiberlink – Nebraska, LLC and Time Warner Cable Information Services (Nebraska), LLC March 24, 2017

1	Q.	Please state your name, business address and occupation.
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- 2 A. My name is Joseph Gillan. My business address is P. O. Box 540386, Merritt Island,
- Florida 32954. I am an economist with a consulting practice specializing in
- 4 telecommunications.

5

6 Q. On whose behalf are you testifying?

- 7 A. I am testifying on behalf of Charter Fiberlink Nebraska, LLC ("Charter Fiberlink") and
- 8 Time Warner Cable Information Services (Nebraska), LLC ("TWCIS") (collectively
- 9 "Charter"). These Charter affiliates provide telecommunications services to enterprise
- business customers, including private line and data wide area network services; in
- addition, these companies provide local network interconnection, telephone numbers, and
- 12 other telecommunications services to affiliates that offer voice over Internet Protocol
- 13 ("VoIP") services to end-users in Nebraska. In addition, they also provide exchange
- access to other carriers. Like Charter Fiberlink, TWCIS is a wholly-owned operating

1		subsidiary of Charter Communications, Inc. and provides an equivalent range of services.
2		In addition, other affiliates of Charter Fiberlink and TWCIS offer internet services.
3		
4	Q.	Please briefly outline your educational background and related experience.
5	A.	I am a graduate of the University of Wyoming where I received B.A. and M.A. degrees in
6		economics. From 1980 to 1985, I was on the staff of the Illinois Commerce Commission
7		where I was responsible for the analysis of issues created by the emergence of
8		competition in regulated markets, in particular the telecommunications industry. While
9		at the Illinois Commerce Commission, I served on the staff subcommittee for the
10		National Association of Regulatory Utility Commissioners ("NARUC") Communications
11		Committee and was appointed to the Research Advisory Council overseeing the National
12		Regulatory Research Institute ("NRRI").
13		
14		In 1985, I left the Illinois Commerce Commission to join U.S. Switch, a venture firm
15		organized to develop interexchange access networks in partnership with independent
16		local telephone companies. During my tenure at US Switch, I was responsible for
17		regulatory strategies and compliance, contract negotiation with independent telephone
18		companies, and project oversight for its (anticipated) pilot network, Indiana Switch. At
19		the end of 1986, I resigned my position of Vice President-Marketing/Strategic Planning
20		to begin a consulting practice.
21		
22		Over the past thirty years I have testified over 300 times before more than 40 state
23		commissions, a number of state legislatures, the Commerce Committee of the United

tates Senate, the Federal/State Joint Board on Separations Reform, the Finance Mini	istry
f the Cayman Islands and the Canadian Radio-Telecommunications Commission	

I have authored various articles in a number of telecommunications and regulatory trade publications. In addition to my consulting and business activity, I am an instructor at an annual regulatory studies program at Michigan State University (commonly known as "Camp NARUC"), and have taught at similar programs sponsored by New Mexico State University and the University of Wyoming. I have lectured at the Northwestern University Law School and the School of Laws, University of London (United Kingdom), and co-instructed *Telecom Policy and Regulation for Next Generation Networks* with Dr. Mark Jamison for the staff at the Office of the Communications Authority, Hong Kong, China. I currently serve on the Advisory Counsel to the New Mexico State University Center for Regulation.

A.

Q. Do you have any experience with the design and operation of universal service funds?

Yes. As my curriculum vita shows (Exhibit JPG-1 attached), I have been extensively involved in proceedings establishing – and then reforming – state universal service funds, particularly in the time since the federal Telecommunications Act of 1996 (the "Federal Act") was enacted. In addition to this advocacy work, in 2008 I was nominated by the Chairman of the Federal Communications Commission (the "FCC") to serve on the Board of Directors for the Universal Service Administrative Company ("USAC"), the not-for-profit corporation that administers federal universal service programs to represent

1		the interests of competitive local exchange carriers. I was renominated to the Board of
2		Directors in 2009 and 2013, and currently serve as Chairman of the Audit Committee,
3		and Vice Chairman of the High Cost and Low Income Committee.
4		
5		To be clear, my testimony is not offered on behalf of USAC, nor does it represent the
6		views of that organization. That said, I have observed just how challenging even simple
7		contribution systems can become once exposed to the crucible of reality. I realize that
8		the Nebraska Public Service Commission (the "Commission") is concerned that the
9		declining base of intrastate revenues may jeopardize its universal service objectives, but
10		my fundamental view is that a connections-based scheme is fraught with complexity and
11		offers only the illusion of stability.
12		
13	Q.	Does Charter (through its affiliates) currently contribute to the Nebraska Universal
14		Service Fund ("NUSF")?
15	A.	Yes. The Charter's affiliates contribute in accordance with the existing revenue-based
16		contribution mechanism.
17		
18	Q.	In your view, what is the principal difference between a revenue-based and
19		contribution-based contribution system?
20	A.	In very simple terms, a revenue-based contribution arrangement is a system with known
21		(and corrected, to the extent correctable) flaws, while a connection-based regime is a
22		system of yet-to-be appreciated distortions, inevitable complexities and significant

transaction costs. The fixed implementation costs of revenue-based systems are sunk,

1		while the variable costs of a state fund are incremental to the federal system. Moving
2		away from this system will be complex, costly, confusing, and will likely need to be
3		duplicated if the FCC ultimately changes the federal system. The Commission should
4		exercise caution before abandoning the existing approach, even if it means that it must
5		walk-back from its proposal.
6		
7	Q.	Does your testimony provide a detailed analysis of the proposal in the Commission's
8		February 22, 2017 Order ("February Proposal")?
9	A.	Generally, yes. However, it is my understanding that the Staff will be proposing an
10		alternative in its March 24 testimony and, as a result, my review is not yet complete.
11		Nevertheless, I have tried to identify the key issues presented by the February Proposal,
12		while recognizing that the Staff is considering revisions.
13		
14	Q.	What are your core concerns with the February Proposal?
15		
16	A.	My specific concerns are that:
17 18 19		* The proposed definition of "connection" is flawed because it proposes to assess services beyond the limits of the Commission's jurisdiction;
20 21 22		* The proposed surcharges, particularly with respect to fixed business services, are arbitrary and appear to violate federal law;
232425		* The proposal does not appear to assess all carriers equitably;

Order and Order Seeking Further Comments and Setting Hearing (Feb. 22, 2017) ("February Order").

1 2 3		* Form 477 data has issues if relied upon to count connections; and
3 4 5		* Moving to a connections-based contribution system will increase the cost to administer the NUSF.
6		Moreover, it is likely that any effort to correct the above-cited concerns will unavoidably
7		add additional complexity and, in all likelihood, result in a Rube Goldberg-like system
8		that is no better than the system it replaces, but costlier to administer.
9		
10	Q.	What issue is created by the definition of a "connection" in the February Proposal?
11	A.	The proposed definition of "connection" appears to include broadband services and other
12		interstate services, in conflict with the FCC's jurisdiction. ² Specifically, the definition
13		does not exempt a wired line (or wireless channel) used to provide "broadband internet
14		access service" or "BIAS."
15		
16		Critically, in the 2015 Open Internet Order,3 the FCC refrained from imposing the
17		requirements of federal universal service contributions on BIAS, and made clear that the
18		states are similarly bound:
		The state of the s

The *February Proposal* includes the following definition of "connection" for purposes of assessing NUSF charges (*February Order* at 20):

[&]quot;A wired line or wireless channel used to provide end users with access to any assessable service."

In turn, "assessable service" is defined as follows:

[&]quot;A service which allows a connection to other networks through inter-network routing as a means to provide telecommunications."

³ Protecting and Promoting the Open Internet, Report and Order on Remand, Declaratory Ruling and Order, GN Docket No. 14-28, FCC 15-24, 30 FCC Rcd 5601 (2015).

1		We also make clear that the states are bound by our forbearance decisions
2		today. Under section 10(e), "[a] State commission may not continue to apply or enforce any provision" from which the [Federal
4		Communications] Commission has granted forbearance. With respect to
5		universal service, we conclude that the imposition of state-level
6		contributions on broadband providers that do not presently contribute
7		would be inconsistent with our decision at the present time to forbear from
8		mandatory USF contributions, and therefore we preempt any state from
9		imposing any new state USF contributions on broadband — at least until
10		the [Federal Communications] Commission rules on whether to provide
11 12		for such contributions. ⁴
1 2		
13		Consequently, introducing a NUSF fee on a broadband connection would violate federal
14		law. I note that the Commission indicates that "it does not propose to assess broadband
15		service";5 however, the proposed definition of "connection" potentially includes
16		broadband service nonetheless. ⁶
17		
18	Q.	Is it important for the Commission's approach to remain consistent with the FCC's
19		USF mechanisms?
20	A.	Yes. A key premise to the FCC not preempting the Commission from assessing nomadic
21		VoIP service ⁷ was the <i>consistency</i> of such assessments with the FCC's federal universal
22		service mechanism.8 Although the FCC has allowed states to impose state universal

⁴ *Id.* at para. 432. (Emphasis added.)

⁵ February Order at 15.

I would also note that the proposed definitions are circular - i.e., the definition of "connection" is essentially that of a "line" or "channel" used for an "assessable service," which is itself defined as allowing a "connection."

Charter's affiliates provide fixed VoIP service, but a focus of the FCC's review of the Commission's proposals presumably also would be consistency with the federal mechanism.

⁸ Universal Service Contribution Methodology, Petition of Nebraska Public Service Commission and Kansas Corporation Commission for Declaratory Ruling or, in the Alternative, Adoption of Rule

service contribution requirements on the *revenues* generated by interconnected VoIP service (that by definition use a broadband connection), the FCC has not yet made a similar determination with respect to a *connections*-based method. As such, any connections-based system is (potentially) subject to federal challenge.

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6 Q. Do connections-based methods effectively assess interstate services?

7 A. Yes. Virtually all connections (however defined) are shared-use facilities that are used to 8 provide both intrastate and interstate services. ⁹ Capacity (or connections) simply cannot 9 be separated into jurisdictional components. Today's need to attribute revenue is difficult enough, ¹⁰ it is essentially impossible with connections. ¹¹ As a practical matter, 10 11 the Commission has noted the complexities associated with separating a single (bundled) price into jurisdictional components. But this problem is made no simpler by having to 12 13 separate a single facility into interstate and intrastate components. Indeed, it is precisely because the task is impossible that the connections-based approach gives the illusion of 14

Declaring that State Universal Service Funds May Assess Nomadic VoIP Intrastate Revenues, WC Docket No. 06-0122, FCC 10-185, Declaratory Order (Nov. 5, 2010), para. 11.

Interstate services include broadband services. See 2015 Open Internet Order at para. 431: "Today, we reaffirm the Commission's longstanding conclusion that broadband Internet access service is jurisdictionally interstate for regulatory purposes."

States must distinguish between revenues collected from intrastate services and those collected from interstate services and only assess the former for state universal service purposes. This is not always possible without imposing an unreasonable burden on the carrier. Therefore, at the federal level, the FCC has provided a "safe harbor" and other methods of determining the allocation of revenues to allow carriers to assume that a certain proportion of revenue is attributable to intrastate service. See *Universal Service Contribution Methodology, A National Broadband Plan For Our Future*, GN Docket No. 09-51, WC Docket No. 06-122, Further Notice of Proposed Rulemaking, FCC 12-46, 27 FCC Rcd. 5357 (rel. April 30, 2012), para. 12.

It has been suggested that a "connections-based" mechanism would eliminate the need for carriers to distinguish between intrastate and interstate services (*Id.*, at 266). In fact, the opposite is true.

simplicity. Ultimately, as the services become more complex (i.e., business), the
Commission is forced to adopt approximations and adjustments that are no better (indeed
worse) than the approaches used to allocate revenues.

A.

Q. The February Order suggests that telephone numbers could be used as a proxy for "connections." Do you agree?

No. The *February Proposal* defines "connection" as a "wired line or wireless channel." For residential users, there is typically a one-for-one correlation between channels and telephone numbers. Business services, however, often include multi-line telephone systems or high-capacity facilities such as PRIs, T-1s or IP-enabled facilities providing equivalent functionality. Because not every employee will be on the phone at any given moment, a business with a PRI (which has 23 voice channels and a 24th for signaling), for example, may have forty (40) separate phones, with fifty (50) telephone numbers. If every "working telephone number" is assessed, the businesses will bear a disproportionately heavier burden of supporting state universal service (per channel) than a residential customer. And, if a fee were assessed on telephone numbers rather than channels, the burden on businesses would be disproportionately, and unfairly, larger than on residential customers.

February Order at 21:

We further agree . . . that the use of working telephone numbers for routing would serve as a readily available method to identify assessable connections. For purposes of this order "inter-network" routing numbers are limited to working telephone numbers. We further clarify our proposal that the assessment would continue to be on the end users.

Q. Does the Form 477 provide useful data?

That is not clear, at least at this point and in the context of the *February Proposal*.

Service providers submit Form 477 data to the FCC as "line" information and as "subscribership" information, not as numbers of telephone numbers or "working telephone numbers." If the Commission intends to use Form 477 data, it should do so at the highest level of aggregation and it should draft the rule "from the data up" (*i.e.*, the rule should be clear as to its measures). To be clear, such improvements do not make a connections-based scheme the preferred approach, and instead would only reduce the number of incremental controversies.

A.

Form 477 data is highly confidential and must be obtained pursuant to the FCC's procedures and comport with federal law. With respect to traditional "wireline" service, Form 477 data is reported to the FCC as the number of lines. With respect to "VoIP" data, what is reported is "subscriptions." Whether reported as "lines" or "subscriptions," the data ultimately is reported in terms of "voice-grade equivalents." Service providers have a compelling interest in safeguarding the release of Form 477 data to competitors. Any perceived need of the Commission for Form 477 data must be carefully considered and understood by all interested parties. A workshop setting would give parties the opportunity to both understand exactly how the Commission intends to use this highly competitively sensitive and confidential data and to provide input to the

See FCC Form 477 Local Telephone Competition and Broadband Reporting Instructions ("FCC Form 477 instructions"), December 5, 2016.

Commission. On its face, it does not appear that the Commission under any set of
circumstances would need access to any Form 477 other than voice subscribership data
reported on a state-level basis.

Moreover, because access to such data by the Commission must follow FCC procedures and abide by federal law, this raises significant issues involving its availability to third party consultants administering the NUSF.

The FCC has long recognized "the potential for competitive harm that release of the gathered [Form 477] data could cause" and, in particular, "the ability of competitors to take the data submitted and tailor market strategies to quash nascent competition, protect areas that are being subjected to increased competition, or deploy facilities to defend strongholds." As a result, the FCC does not publish Form 477 subscribership and connections data, and it strictly limits the circumstances under which such information may be disclosed. The FCC will release Form 477 data to a state commission, but only if the commission "has protections in place that would preclude disclosure of any

Local Competition and Broadband Reporting, 15 FCC Rcd. 7717, para. 87 (2000).

See 47 C.F.R. §§ 0.457, 0.459, 0.461, 1.7001(d); see generally In the Matter of Modernizing the FCC Form 477 Data Program, 28 FCC Rcd. 9887 (2013).

2		restrictions on data release that are at least as stringent as federal requirements. ¹⁷
3		
4	Q.	Will a connections-based approach treat all carriers equally?
5	A.	No, not necessarily. By relying on a connections-based approach, the NUSF might not
6		collect contributions from wireless resellers. When discussing the proposed definition of

"connections" the Commission states:

confidential information." Furthermore, the state commission must also agree to

We note the term "wireless channel" is utilized in the FCC's Form 477 instructions in its generally descriptive language. For the purpose of this definition, the Commission would rely on the general and common understanding of the phrase wireless channel, meaning a wireless pathway or frequency used to transmit information. If a wireless connection capable of transmitting voice service is reported to the FCC for Form 477 purposes, likewise, the Commission proposes that it would fall under the definition of "connection". 18

This suggests that wireless resale would not contribute, because only *facilities-based* wireless service providers report data for Form 477 purposes. Because the Commission seems to look to the Form 477 data as to what constitutes a "connection," only the provider of the facility defined as a "connection" would contribute to the NUSF. How the loss of wireless resale-based contributions may affect the NUSF, when compared with the revenues gained from used a connections-based approach, is not clear. What is

¹⁶ 47 C.F.R. § 1.7001(d).

See "Wireline Competition Bureau Announces Revised Procedures For State Public Utility Commissions To Access Non-Public FCC Form 477 Data For Their Respective States," WC Docket No. 11-10, DA 16-1177 (rel. October 13, 2016).

¹⁸ February Order at 21.

clear, however, is that not every provider of voice telecommunications services in

Nebraska would be assessed for the NUSF, even when the providers of retail

telecommunications services are assessed for purposes of the federal universal service

fund.

On its face, it would seem that the combination of a connections-based method and the reliance on Form 477 data may disproportionately increase the burdens faced by wireline-related and facilities-based wireless providers. This disparity brings into question whether the NUSF would be administered consistently with the requirements of section 254(f) of the Federal Act, which requires state universal service funds to be implemented "on an equitable and nondiscriminatory basis."

- Q. Do all these issues mean that the costs to operate a connections-based system will be higher than the existing system?
- A. Yes. To begin, none of the synergies of complementary federal and state systems can be realized if Nebraska uses a system that differs from the federal regime. A connections-based system would impose new costs on both industry and its administrator in the form of new data collection and reporting requirements, necessitating changes to billing and reporting systems. Moreover, "revenues are easily verifiable through providers' accounting statements," while "neither numbers nor connections, however defined, are

Universal Service Contribution Methodology, A National Broadband Plan For Our Future, GN Docket No. 09-51, WC Docket No. 06-122, Further Notice of Proposed Rulemaking, FCC 12-46 (rel. April 30, 2012), at para. 222.

1		subject to the sort of known and standardized process by which revenues may be
2		accounted as of specific periods and over time."20
3		
4	Q.	Are the specific surcharges suggested in the February Proposal sufficiently explained
5		or justified?
6	A.	No. The proposed surcharges, particularly with respect to fixed business services, appear
7		to violate section 254(f) of the Federal Act and appear arbitrary. ²¹ The surcharges are not
8		uniform, but rather, they differ based on the type of service. It is not clear, however, how
9		these surcharges were computed.
10		
11		To begin, the proposed surcharges for "business fixed voice" services are assessed on a
12		per connection basis. It is unclear, however, how the Commission would have
13		determined the number of connections corresponding to any given dollar range of retail
14		rates charged for "Business Fixed Voice."
15		
16		More significantly, if the surcharges are "per connection," the surcharges increase as the
17		customer is charged a greater amount for retail service. It may be that the February
18		Proposal suggests graduated levels of surcharges in order to mitigate possible regressive
19		consequences of an approach that would have the contrary effect of imposing

Reply Comments of the State Members of the Federal State Joint Board on Universal Service (Aug. 6, 2012), GN Docket No. 09-51, WC Docket No. 06-122, p. 13.

February Order, Table 2 at 22.

proportionally greater obligations on lower-capacity users. However, the surcharge levels proposed by the Commission appear to *substantially* – indeed, *dramatically* – increase at the higher end.

While the desire to mitigate the effects of a connections-based approach on lower-income customers is understandable, it is not intuitively fair – at least, not without further public discussion – to propose surcharges that per "connection" vary significantly according to how much the customer is being charged for service. And despite the Commission's candid, expressed justification, that "to meet [its] budget goals . . . the Commission proposes the [se] surcharge rates," such reasoning does not explain how the charges are being levied on "an equitable and nondiscriminatory basis" as required by 254(f) of the Federal Act.

Q. Should the Commission use this proceeding to increase the size of the NUSF? ²³ A: No. Substantially increasing the NUSF at the same time the Commission is considering changing the contribution method makes it impossible to distinguish cause and effect. Is the contribution method being changed to increase funding or to stabilize it at current levels? If the primary purpose is contribution reform, then any fundamental change should be implemented to achieve current funding goals. Whether the NUSF should be

February Order at 22.

Id. at 26. Table 4 proposes to increase the budget to nearly \$71 million for 2018 from nearly \$44 million currently. This represents a 62% increase in the NUSF.

expanded should be the subject of a separate proceeding, after further discussion by the parties and the public, and should include the implementation of measures to ensure that funds are not used for overbuilding (*i.e.*, subsidizing entry to compete against unsubsidized competitors), as well as to ensure accountability. Moreover, any expansion should also consider federal USF programs and their impact. This is particularly true here, where a new FCC has announced that broadband deployment will be one of its *highest* priorities, and it is highly likely that FCC actions will occur relatively soon.²⁴

To reiterate, so that the point does not get lost among the forest of issues, continuing with a revenue-based system is the most efficient, the most trusted, the most enforced and most enforceable, system yet devised. As Churchill said: "Democracy is the worst form of government, except for all the others." The same can be said for revenue-based contribution systems – at least at this time.

Q. Does this conclude your testimony?

I generally do not recommend waiting for the FCC to act. That said, however, Chairman Pai at the FCC has indicated a focus on expanding broadband and the Commission should expect that he will (at least) begin his term with an effort at introducing new measures, and systems, to close rural gaps in Nebraska and elsewhere. Consequently, the reasonableness of state-federal coordination here has a stronger basis than it might have in other circumstances.

Winston Churchill, House of Commons, 11 November 1947 (quoting an unknown predecessor). The specific quote:

Many forms of Government have been tried, and will be tried in this world of sin and woe. No one pretends that democracy is perfect or all-wise. Indeed, it has been said that democracy is the worst form of Government except for all those other forms that have been tried from time to time....

2 A. Yes.

Joseph Gillan Gillan Associates joseph@gillanassociates.com

Education

B.A. Economics, University of Wyoming, 1978. M.A. Economics, University of Wyoming, 1979.

Professional History

Gillan Associates, Economic Consulting (1987-Present)

Mr. Gillan manages a private consulting practice specializing in the economic evaluation of regulatory policies and business opportunities in the telecommunications industry.

Vice President, US Switch, Inc. (1985-1987)

Responsible for crafting the US Switch business plan to gain government approval. US Switch pioneered the concept of "centralized equal access," which positioned independent local telephone companies for a competitive long distance market. While with US Switch, Mr. Gillan was responsible for contract negotiation/marketing with independent telephone companies and project management for the company's pilot project in Indiana.

Policy Director/Market Structure - Illinois Commerce Commission (1980-1985)

Primary staff responsibility for the policy analysis of issues created by the emergence of competition in regulated markets, in particular the telecommunications industry.

Mountain States Telephone Company - Demand Analyst (1979)

Responsible for conducting statistical analysis of the demand for access by residential subscribers.

Professional Appointments

Board of Directors Universal Service Administrative Company 2008-Present

Guest Lecturer Northwestern University Law School 2007

Guest Lecturer School of Laws, University of London, 2002, 2008

Instructor Michigan State University, Regulatory Instructional Program, 2005-Present

Instructor Principles of Regulation, New Mexico State University Center for Regulation

Advisory Council New Mexico State University, Center for Regulation, 1985 – Present

Professional Appointments (continued)

Faculty Summer Program, Public Utility Research and Training Institute, University of

Wyoming, 1989-1992

Contributing Editor Telematics: The National Journal of Communications Business and Regulation,

1985 - 1989

Chairman Policy Subcommittee, NARUC Staff Subcommittee on Communications,

1984-1985

Advisory Committee National Regulatory Research Institute, 1985

Distinguished Alumni University of Wyoming, 1984

Selected Publications

"The Importance of Section 252 to Competition and the Public Interest: The Continuing State Role in the Age of IP Networks," October 2015.

"Managing the Transition to IP-Based Public Phone Networks in the United States," 6th Annual Competition in Regulated Industries Conference, November 22, 2013, Brussels, Belgium.

"The Transition to an All-IP Network: A Primer on the Architectural Components of IP Interconnection," with David Malfara, National Regulatory Research Institute, NRRI 12-05, May 2012.

The Next Step for Next Generation Technology: Interconnecting Managed Packet Networks to Preserve Voice Service Quality and Competition," 2008, http://www.freetocompete.com/files/gillan_nextstep-nxtgen_2008.pdf

"The Local Exchange: Regulatory Responses to Advance Diversity," with Peter Rohrbach, <u>Public Utilities Fortnightly</u>, July 15, 1994.

"Reconcentration: A Consequence of Local Exchange Competition?" with Peter Rohrbach, <u>Public Utilities</u> Fortnightly, July 1, 1994.

"Diversity or Reconcentration: Competition's Latent Effect," with Peter Rohrbach, <u>Public Utilities</u> Fortnightly, June 15, 1994.

"Consumer Sovereignty: A Proposed Approach to IntraLATA Competition," <u>Public Utilities Fortnightly</u>, August 16, 1990.

"Reforming State Regulation of Exchange Carriers: An Economic Framework," Third Place, University of Georgia Annual Awards Competition, 1988, <u>Telematics: The National Journal of Communications, Business and Regulation</u>, May, 1989.

"Regulating the Small Telephone Business: Lessons from a Paradox," <u>Telematics: The National Journal of Communications, Business and Regulation</u>, October, 1987.

Selected Publications (continued)

"Market Structure Consequences of IntraLATA Compensation Plans," <u>Telematics: The National Journal of Communications</u>, Business and Regulation, June, 1986.

"Universal Telephone Service and Competition on the Rural Scene," <u>Public Utilities Fortnightly</u>, May 15, 1986.

"Strategies for Deregulation: Federal and State Policies," with Sanford Levin, Proceedings, <u>Rutgers University Advanced Workshop in Public Utility Economics</u>, May 1985.

"Charting the Course to Competition: A Blueprint for State Telecommunications Policy," <u>Telematics: The</u> National Journal of Communications Business, and Regulation, with David Rudd, March, 1985.

"Detariffing and Competition: Options for State Commissions," Proceedings of the <u>Sixteenth Annual Conference of Institute of Public Utilities</u>, Michigan State University, December 1984.

International Assignments

Transitioning Universal Service Support to Broadband in the United States: Providing Incumbents a Right-of-First-Refusal or Competitive Bidding, submitted to the Canadian Radio-television and Telecommunications Commission on behalf of Bell Canada, TNC 2015-134.

Telecom Policy and Regulation for Next Generation Networks, instructor with Dr. Mark Jamison, Public Utility Research Center, University of Florida, for the Office of the Communications Authority, Hong Kong, China, February 2013.

The Federal Universal Service System in the United States: A History of Spiraling Contribution, Report submitted to the Canadian Radio-television and Telecommunications Commission on behalf of Bell Canada.

The Appropriate Pricing Standard for Wholesale Loops, with George Hariton, Telecommunications Issues and Analysis, Report submitted to the Canadian Radio-television and Telecommunications Commission on behalf of Bell Canada.

Forcing a Square Peg into a Round Hole: Applying the Universal Service Cost Model in the Cayman Islands, Analysis Presented to the Government of the Cayman Islands on behalf of Cable and Wireless,

Recovering Contribution: Lessons from the United States' Experience, Report submitted to the Canadian Radio-television and Telecommunications Commission on behalf of CallNet.

<u>Listing of Expert Testimony – Court Proceedings</u>

James Valley Telephone Cooperative et. al. v. South Dakota Networks (06Civ15-000134, South Dakota Circuit Court, Fifth Circuit, Brown County South Dakota)(Federal rules and orders relating to centralized equal access service)

FORTIS ADVISORS LLC, as Effective Time Holders Agent vs. SHORETEL, INC., (Arbitration JAMS REF. No. 1110016198)(FUSF contribution requirements for bundles)

Hamilton County Emergency Communications District, et. al. vs. Bellsouth Telecommunications, LLC, d/b/a AT&T Tennessee (United States District Court, Eastern District Of Tennessee at Chattanooga)(Structure of Telecommunications Industry)

Dina Hataishi, individually and as class representative vs. First American Home Buyers Protection Corporation and The First American Corporation (Case No. BC420436, Superior Court of The State of California For the County Of Los Angeles) (Geographic precision of telephone numbers).

The Metropolitan Gov't of Nashville and Davidson County, Tenn. v. XO Tennessee, Inc., et al., (Docket Nos. 02-679-IV & 02-749-IV, Chancery Ct. for Davidson City, Tenn.)(Proper payment for the use of Public Rights of Way).

Global Crossing Telecommunications, Inc. v. NTELOS Telephone, Inc., (Civil Action No. 7:11-CV-005030-SGW United States District Court, Western District of Virginia, Roanoke Division)(Access Tariff Interpretation/Meet Point Billing of Transport).

Trinsic, Inc. et al., v. Thermo Credit, LLC, (Bankruptcy Case No. 07-10324-MAM-7 United States Bankruptcy Court, Southern District of Alabama, Southern Division)(Industry Structure/Federal Policy/Local Entry Strategies)

ACD Telecom, Inc., v. Michigan Bell Telephone Company, d/b/a SBC Michigan, (Civil Action No. 04-689-CK Circuit Court for the County of Ingham Michigan) (Breach of Contract/Industry Terminology)

MCI, L.L.C. dba Verizon Business vs. Vorst Paving, Inc., (Civil Action NO. CV: 106-064 District Court for the Southern District Of Georgia) (Damages Claim)

United States of America v. SBC Communications Inc. and AT&T Corp. (Civil Action No. 1:05CV02102 District Court for the District of Columbia) (Inadequacy of Proposed Final Judgment Settling SBC Merger with AT&T)

United States of America v. Verizon Communications Inc. and MCI Inc. (Civil Action No. 1:05CV02103 District Court for the District of Columbia) (Inadequacy of Proposed Final Judgment Settling Verizon Merger with MCI)

T & S Distributors, LLC, ACD Telecom, Inc, Telnet Worldwide, Inc et al. v. Michigan Bell Telephone Company (Civil Action No. 04-689-CK Ingham Circuit Court, State of Michigan) (Enforcement of contract; Industry definitions of local exchange service and end user)

Dwayne P. Smith, Trustee v. Lucent Technologies (Civil Action No. 02-0481 Eastern District of Louisiana) (Entry and CLEC Performance)

<u>Listing of Expert Testimony - Court Proceedings (continued)</u>

BellSouth Intellectual Property v. eXpeTel Communications (Civil Action No. 3:02CV134WS Southern District of Miss.)(Service definition, industry structure and Telecom Act of 1996)

CSX Transportation Inc. v. Qwest International, Inc. (Case No. 99-412-Civ-J-21C Middle District of Florida) (industry structure and wholesale contract arrangements)

Winn v. Simon (No. 95-18101 Hennepin Cty. Dist. Ct.)(risk factors affecting small long distance companies)

American Sharecom, Inc. v. LDB Int'l Corp. (No. 92-17922, Hennepin County District Court) (risk factors affecting small long distance companies)

World Com, Inc. et al. v. Automated Communications, Inc. et al. (No. 3:93-CV-463WS, S.D. Miss.) (damages)

State	Docket/Case	Topic	Sponsor(s)
Pennsylvania	C-2016-2534366 R-2016-2524592	Business Rates	Office of Small Business Advocate
Kentucky	Case No. 2015-00283	IP Interconnection	CompSouth
Pennsylvania	A-2016-2535279	Competitive Impact of Verizon- XO Merger	Office of Small Business Advocate
California	Investigation 15-11-007	Competitive Metrics/Regulation	Cox
Texas	Docket No. 45280	Wireless Backhaul - ROW Fees	ExteNet
Pennsylvania	C-2015-2512860 C-2015-2512883	Business Rates	Office of Small Business Advocate
California	Application 15-03-005	IP Interconnection and §252	CALTEL
Maine	Docket No. 2013-00340	State USF	Time Warner
Massachusetts	DTC 13-6	§252 Filing Obligations	CLEC Coalition
Texas	Docket No. 41097	USF Reform	USF Reform Coalition
Georgia	Docket No. 35068	Cost Allocation of Loops Providing Broadband and USF	Georgia Cable Association.
California	C.11-09-07	Application of Access to VolP	Cox Telcom
California	C.11-05-012	Application of Access to VoIP	Cox Telcom
Texas	Docket No. 39028	Resale of Promotions	Nexus
North Carolina	P-100, Sub 167	Access Reform	NC Cable Assc.

State	Docket/Case	Topic	Sponsor(s)
			and CompSouth
Kentucky	Case No. 2010-00398	Access Reform	KY Cable Assc. and CompSouth
Ohio	Case 10-2387-TP-COI	Access Reform	Ohio Cable Assc.
Missouri	TC-2011-0132	Resale of Promotions	Nexus
Alabama	Docket 31317	Resale of Promotions	Reseller Coalition
North Carolina	Docket P-836, Sub 5	Resale of Promotions	Reseller Coalition
South Carolina	Docket 2010-14-C	Resale of Promotions	Reseller Coalition
Louisiana	Docket U-31364	Resale of Promotions	Reseller Coalition
Louisiana	Docket No. U-31107	ETC/Study Area Redefinition	Cox Telcom
Georgia	Docket No. 32235	USF Implementation	CompSouth
South Carolina	Docket 2009-326-C	USF and Deregulation	SCTA/CompSouth
New Mexico	Case No. 07-00316-UT	Prison Payphone Rates	PCS Inc.
Montana	Docket 2005.6.105	Use of USF Support	PSC Staff
Colorado	Docket No. 07A-211T	UNE Price Cap	CBeyond
California	Rulemaking 08-01-005	Copper Retirement	CalTel
Texas	Docket No. 34723	Universal Service Reform	Reform Coalition
Missouri	Case TO-2006-0360	Wire Center Classification	CLEC Coalition
FCC	WC Docket 06-172	E911 as Measure of Local Comp	CLEC Coalition
Georgia	Docket 14361-U	Time Value of Money	CLEC Coalition
Kentucky	Case No. 2006-000316	271 Pricing – Loop and Switch	Southeast Tel
New York	Case No. 06-C-0897	Verizon Pricing Flexibility	CompTel/XO
Tennessee	Docket 06-00093	AT&T-BellSouth Acquisition	CLEC Coalition
Mississippi	No. 2006-UA-164	AT&T-BellSouth Acquisition	NuVox/TWTC
Kentucky	Case No. 2006-00136	AT&T-BellSouth Acquisition	NuVox/Xspedius
Indiana	Cause No. 42986	Wire Center Impairment List	COVAD/NuVox
Ohio	05-1393-TP-UNC	Wire Center Impairment List	CLEC Coalition
Illinois	Docket 06-0029	Wire Center Impairment List	CLEC Coalition
Illinois	Docket 06-0027	AT&T Illinois Deregulation	Data Net Systems

State	Docket/Case	Topic	Sponsor(s)
Oklahoma	Cause PUD 20060034	Wire Center Impairment List	CLEC Coalition
Kansas	06-SWBT-743-COM	Wire Center Impairment List	CLEC Coalition
Arkansas	Docket 05-140-C	Wire Center Impairment List	CLEC Coalition
Georgia	Docket 19341-U (II)	Establishing Section 271 Rates	CompSouth
Texas	Docket 31303	Wire Center Impairment List	CLEC Coalition
Washington	Docket UT-050814	Verizon-MCI Merger	Covad
California	Application 05-04-020	Verizon-MCI Merger	Cox
California	Application 05-04-020	Verizon-MCI Merger	Covad/CalTel
Oklahoma	Cause 200400695	Supersedes Bond	Сох
Florida	Docket 041269-TP	TRRO Implementation	CompSouth
Mississippi	Docket 2005-AD-139	TRRO Implementation	CompSouth
South Carolina	Docket 2004-316-C	TRRO Implementation	CompSouth
Kentucky	Case No. 2004-00427	TRRO Implementation	CompSouth
Alabama	Docket No. 29543	TRRO Implementation	CompSouth
Louisiana	Docket No. U-28356	TRRO Implementation	CompSouth
North Carolina	Docket P-55, Sub 1549	TRRO Implementation	CompSouth
Tennessee	Docket No. 04-00381	TRRO Implementation	CompSouth
Georgia	Docket No. 19341-U	TRRO Implementation	CompSouth
California	Application 05-02-027	SBC-AT&T Merger	Cox
California	Application 05-02-027	SBC-AT&T Merger	CalTel
Oklahoma	Cause 200400695	SBC Deregulation	Cox
Kansas	05-SWBT-907-PDR	SBC Deregulation	Cox-WorldNet
Wisconsin	6720-TI-196	SBC Deregulation	CUB
Oklahoma	Cause 200400042	Status of Local Competition	Cox
Michigan	Case U-14323	SBC Deregulation	Talk America
Oklahoma	Cause RM 200400014	Regulatory Flexibility for SBC	CLEC Coalition
New Mexico	Case No. 3567	Regulation of Wireless Carriers	Wireless Coalition
North Carolina	Docket P-19 Sub 277	Alternative Regulation	CompSouth
North Carolina	Docket P-55 Sub 1013	Alternative Regulation	CompSouth

State	Docket/Case	Topic	Sponsor(s)
Mississippi	Docket 2003-AD-714	Switching Impairment	CompSouth
Kentucky	Case No. 2003-00379	Switching Impairment	CompSouth
Texas	Docket 28607	Switching Impairment	CLEC Coalition
Massachusetts	D.T.E 03-60	Switching Impairment	CLEC Coalition
Louisiana	Docket U-27571	Switching Impairment	CompSouth
New Jersey	Docket TO03090705	Switching Impairment	CLEC Coalition
Kansas	03-GIMT-1063-GIT	Switching Impairment	CLEC Coalition
South Carolina	Docket 2003-326-C	Switching Impairment	CompSouth
Alabama	Docket 29054	Switching Impairment	CompSouth
Illinois	Docket No. 03-0595	Switching Impairment	AT&T
Indiana	Cause No. 42500	Switching Impairment	AT&T
Pennsylvania	Case I-00030099	Switching Impairment	CLEC Coalition
Tennessee	Docket No. 03-00491	Switching Impairment	CompSouth
North Carolina	P-100, Sub 133Q	Switching Impairment	CompSouth
Georgia	Docket No. 17749-U	Switching Impairment	CompSouth
Missouri	Case TW-2004-0149	Switching Impairment	CLEC Coalition
Michigan	Case No. U-13796	Switching Impairment	CLEC Coalition
Florida	Docket No. 030851-TP	Switching Impairment	FCCA
Ohio	Case 03-2040-TP-COI	Switching Impairment	AT&T/ATX
Wisconsin	05-TI-908	Switching Impairment	AT&T
Washington	UT-023003	Local Switching Rate Structure	AT&T/MCI
Arizona	T-00000A-00-0194	UNE Cost Proceeding	AT&T/WCOM
Illinois	Docket 02-0864	UNE Cost Proceeding	АТ&Т
North Carolina	P-55, Sub 1013 P-7, Sub 825 P-19, Sub 277	Price Cap Proceedings	CLEC Coalition
Kansas	02-GIMT-555-GIT	Price Deregulation	Birch/AT&T
Texas	Docket No. 24542	Cost Case	AT&T
North Carolina	Docket P-100, Sub 133d	UNE Cost Proceeding	CLEC Coalition
Georgia	Docket No. 11901-U	DSL Tying Arrangement	WorldCom

State	Docket/Case	Topic	Sponsor(s)
Tennessee	Docket No. 02-00207	UNE Availability/Unbundling	CLEC Coalition
Utah	Docket No. 01-049-85	Local Switching Costs/Price	AT&T
Tennessee	Docket No. 97-00309	Section 271 Compliance	CLEC Coalition
Illinois	Docket No. 01-0662	Section 271 Compliance	AT&T
Georgia	Docket No. 14361-U	UNE Availability/Unbundling	CLEC Coalition
Florida	Docket 020507-TL	Unlawful DSL Bundling	CLEC Coalition
Tennessee	Docket No. 02-00207	UNE Availability/Unbundling	CLEC Coalition
Georgia	Docket No. 14361-U	UNE Costs and Economics	AT&T/WorldCom
Florida	Docket 990649-TP	UNE Cost and Price Squeeze	AT&T/WorldCom
Minnesota	P-421/CI-01-1375	Local Switching Costs/Price	AT&T
Florida	Docket 000075-TP	Intercarrier Compensation	WorldCom
Texas	Docket No. 24542	Unbundling and Competition	CLEC Coalition
Illinois	Docket 00-0732	Certification	Talk America
Indiana	Cause No. 41998	Structural Separation	CLEC Coalition
Illinois	Docket 01-0614	State Law Implementation	CLEC Coalition
Florida	Docket 96-0768	Section 271 Application	SECCA
Kentucky	Docket 2001-105	Section 271 Application	SECCA
FCC	CC Docket 01-277	Section 271 for GA and LA	AT&T
Illinois	Docket 00-0700	Shared Transport/UNE-P	CLEC Coalition
North Carolina	Docket P-55 Sub 1022	Section 271 Application	SECCA
Georgia	Docket 6863-U	Section 271 Application	SECCA
Alabama	Docket 25835	Section 271 Application	SECCA
Michigan	Case No. U-12622	Shared Transport/UNEs	AT&T
Ohio	Case 00-942-TP-COI	Section 271 Application	АТ&Т
Alabama	Docket No. 25835	Structural Separation	SECCA
Alabama	Docket No. 27821	UNE Cost Proceeding	ITC^Deltacom
Louisiana	Docket U-22252	Section 271 Application	SECCA
Mississippi	Docket 97-AD-321	Section 271 Application	SECCA
South Carolina	Docket 2001-209-C	Section 271 Application	SECCA
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State	Docket/Case	Topic	Sponsor(s)
Colorado	Docket 99A-577T	UNE Cost Proceeding	АТ&Т
Arizona	Case T-00000A-00-0194	UNE Cost Proceeding	АТ&Т
Washington	Docket UT-003013	Line Splitting and Combinations	AT&T
Ohio	Case 00-1368-TP-ATA Case 96-922-TP-UNE	Shared Transport	AT&T/PACE
North Carolina	P-100 Sub 133j	Standard Collocation Offering	CLEC Coalition
Florida	Docket 990649-TP	UNE Cost Proceeding	CLEC Coalition
Michigan	Case No. U-12320	UNE Combinations/Section 271	АТ&Т
Florida	Docket 00-00731	Section 251 Arbitration	AT&T
Georgia	Docket 5825-U	Universal Service Fund	CLEC Coalition
South Carolina	97-239-C	Universal Service Fund	CLEC Coalition
Texas	PUC Docket 22289/95	ETC Designation	Western Wireless
Washington	Docket UT-003013	UNE Costs and Local Competition	AT&T
New York	Docket 98-C-1357	UNE Cost Proceeding	Z-Tel
Colorado	Docket 00K-255T	ETC Designation	Western Wireless
Kansas	99-GCCZ-156-ETC	ETC Designation	Western Wireless
New Mexico	98-484-TC	ETC Designation	Western Wireless
Illinois	Docket 99-0535	Cost of Service Rules	AT&T/MCI
Colorado	Docket 00-B-103T	U S WEST Arbitration	ICG Comm.
North Dakota	PU-1564-98-428	ETC Designation	Western Wireless
Illinois	Docket 98-0396	Shared Transport Pricing	AT&T/Z-Tel
Florida	Docket 981834-TP	Collocation Reform	CLEC Coalition
Pennsylvania	M-00001353	Structural Separation of Verizon	CompTel/ATX
Illinois	Docket 98-0860	Competitive Classification of Ameritech's Business Services	CompTel/ AT&T
Georgia	Docket 6865-U	Complaint re: Combinations	MCIWorldcom
Virginia	Case No. PUC 990100	GTE/Bell Atlantic Merger	AT&T
Florida	Docket 990649-TP	UNE Cost and Pricing	CLEC Coalition
Nebraska	Application C-1960/PI-25	IP Telephony and Access Charges	ICG Communications

State	Docket/Case	Topic	Sponsor(s)
Georgia	Docket 10692-U	Pricing of UNE Combinations	CLEC Coalition
Colorado	Docket 99F-141T	IP Telephony and Access	Qwest
California	Case A. 98-12-005	GTE/Bell Atlantic Merger	AT&T/MCI
Indiana	Case No. 41255	SBC/Ameritech Merger	AT&T
Illinois	Docket 98-0866	GTE/Bell Atlantic Merger	AT&T
Ohio	Case 98-1398-TP-AMT	GTE/Bell Atlantic Merger	AT&T
Tennessee	Docket 98-00879	BellSouth BSE	SECCA
Missouri	Case TO-99-227	§ 271 Review: SBC	AT&T
Colorado	Docket 97A-540T	Stipulated Price Cap Plan/USF	CLEC Coalition
Illinois	ICC Docket 98-0555	SBC/Ameritech Merger	AT&T
Ohio	Case 98-1082-TP-AMT	SBC/Ameritech Merger	AT&T
Florida	Docket 98-1121-TP	UNE Combinations	MCI WorldCom
Georgia	6801-U	§ 251 Arbitration: BellSouth	AT&T
Florida	92-0260-TL	Rate Stabilization Plan	FIXCA
South Carolina	Docket 96-375	§ 251 Arbitration: BellSouth	АТ&Т
Kentucky	Docket 96-482	§ 251 Arbitration: BellSouth	АТ&Т
Wisconsin	05-TI-172/5845-NC-101	Rural Exemption	TDS Metro
Louisiana	U-22145	§ 251 Arbitration: BellSouth	АТ&Т
Mississippi	96-AD-0559	§ 251 Arbitration: BellSouth	AT&T
North Carolina	P-140-S-050	§ 251 Arbitration: BellSouth	AT&T
Tennessee	96-01152	§ 251 Arbitration: BellSouth	AT&T
Arizona		§ 251 Arbitration: US West	AT&T Wireless
Florida	96-0883-TP	§ 251 Arbitration: BellSouth	АТ&Т
Montana	D96.11.200	§ 251 Arbitration: US West	AT&T
North Dakota	PU-453-96-497	§ 251 Arbitration: US West	AT&T
Texas	Docket 16226	§ 251 Arbitration: SBC	AT&T/MCI
Alabama	Docket 25703	§ 251 Arbitration: BellSouth	АТ&Т
Alabama	Docket 25704	§ 251 Arbitration: GTE	АТ&Т
Florida	96-0847-TP	§ 251 Arbitration: GTE	AT&T

State	Docket/Case	Topic	Sponsor(s)
Kentucky	Docket 96-478	§ 251 Arbitration: GTE	AT&T
North Carolina	P-140-S-51	§ 251 Arbitration: GTE	АТ&Т
Texas	Docket 16630	§ 251 Arbitration: SBC	LoneStar Net
South Carolina	Docket 96-358	§ 251 Arbitration: GTE	АТ&Т
Texas	Docket 16251	§ 271 Review: SBC	AT&T
Oklahoma	97-0000560	§ 271 Review: SBC	AT&T
Kansas	97-SWBT-411-GIT	§ 271 Review: SBC	AT&T
Alabama	Docket 25835	§ 271 Review: BellSouth	AT&T
Florida	96-0786-TL	§ 271 Review: BellSouth	FCCA
Georgia	Docket 6863-U	§ 271 Review: BellSouth	AT&T
Kentucky	Docket 96-608	§ 271 Review: BellSouth	АТ&Т
Louisiana	Docket 22252	§ 271 Review: BellSouth	AT&T
Texas	Docket 16226	UNE Cost	AT&T/MCI
Colorado	97K-237T	Access Charges	AT&T
Mississippi	97-AD-321	§ 271 Review: BellSouth	AT&T
North Carolina	P-55 Sub 1022	§ 271 Review: BellSouth	AT&T
South Carolina	97-101-C	§ 271 Review: BellSouth	AT&T
Tennessee	97-00309	§ 271 Review: BellSouth	AT&T
Tennessee	96-00067	Wholesale Discount	AT&T
Tennessee	97-00888	Universal Service	AT&T
Texas	Docket 15711	GTE Certification as CLEC	AT&T
Kentucky	97-147	BellSouth BSE Certification	SECCA
Florida	97-1056-TX	BellSouth BSE Certification	FCCA
North Carolina	P691 Sub O	BellSouth BSE Certification	SECCA
Florida	98-0696-TP	Universal Service	FCCA
New York	97-C-271	§ 271 Review: Bell Atlantic	CompTel
Montana	D97.5.87	§ 271 Review: US West	AT&T
New Mexico	97-106-TC	§ 271 Review: US West	AT&T/CompTel
Nebraska	C-1830	§ 271 Review: US West	АТ&Т

State	Docket/Case	Topic	Sponsor(s)
Alabama	Docket 25980	Universal Service	АТ&Т
Kentucky	Admin 360	Universal Service	AT&T
North Carolina	P100-S133B	Universal Service	AT&T
North Carolina	P100-S133G	Universal Service	АТ&Т
Illinois	95-0458/0531	Combined Network Elements	WorldCom
Illinois	96-0486/0569	Network Element Cost/Tariff	WorldCom
Illinois	96-0404	§ 271 Review: Ameritech	CompTel
Florida	97-1140-TP	Combining Network Elements	AT&T/MCI
Pennsylvania	A-310203-F0002	Local Competition	CompTel
Georgia	6415 - U/6527-U	Local Competition	CompTel
Illinois	98-NOI-1	Structural Separation	CompTel/Qwest
New York	98-C-690	Combining Network Elements	CompTel
Texas	Docket 17579	§ 251 Arbitration: SBC (2nd)	AT&T/MCI
Texas	Docket 16300	§ 251 Arbitration: GTE	AT&T
Florida	Docket 920260-TL	Price Cap Plan	IXC Coalition
Louisiana	Docket U22020	Resale Cost Study	AT&T/LDDS
California	Docket R.93-04-003	Rulemaking on Open Network Architecture	LDDS/WorldCom
Tennessee	Docket 96-00067	Avoidable Cost/Resale Discount	AT&T
Georgia	Docket 6537-U	Unbundled Loop Pricing	CompTel
Georgia	Docket 6352	Rules for Network Unbundling	AT&T
Pennsylvania	Docket A-310203F0002	Introducing Local Competition	CompTel
Florida	Docket 95-0984-TP	Interconnection Terms and Prices	AT&T
Kentucky	Case No. 365	Local Competition/Universal Service	WorldCom
Mississippi	Docket 95-UA-358	Introducing Local Competition	AT&T/WorldCom
Florida	Docket 95-0984-TP	Interconnection Terms and Prices	АТ&Т
Illinois	Docket 95-0458	Wholesale Local Services	WorldCom

State	Docket/Case	Topic	Sponsor(s)
California	Dockets R.95-04-043/044	Local Competition	WorldCom
Florida	Docket 95-0696-TP	Universal Service and Carrier of Last Resort Obligations	IXC Coalition
Georgia	Docket 5755-U	Access Reform	АТ&Т
South Carolina	Docket 95-720-C	Price Regulation	ACSI
Michigan	Case No. U-10860	Interconnection Agreement	WorldCom
Mississippi	Docket 95-US-313	Price Regulation Plan	WorldCom/AT&T
Missouri	Case TR-95-241	Expanded Local Calling	MCI
Washington	Docket UT-941464	Interconnection Complaint	IXC Coalition
Maryland	Case No. 8584 – Phase II	Introducing Local Competition	WorldCom
Massachusetts	DPU 94-185	Introducing IntraLATA and Local Competition	WorldCom
Wisconsin	Docket 6720-TI-111	IntraLATA Equal Access	Schneider Com.
North Carolina	Docket P-100, Sub 126	Expanded Local Calling	LDDS
Georgia	Docket 5319-U	IntraLATA Equal Access	MCI/LDDS
Mississippi	Docket 94-UA-536	Price/Incentive Regulation	LDDS
Georgia	Docket 5258-U	Price Regulation Plan	LDDS
Florida	Docket 93-0330-TP	IntraLATA Equal Access	IXC Coalition
Alabama	Docket 23260	Access Transport Rate Structure	LDDS
New Mexico	Docket 94-204-TC	Access Transport Rate Structure	LDDS
Kentucky	Docket 91-121	Alternative Regulation Proposal	IXC Coalition
Texas	Docket 12784	Access Transport Rate Structure	IXC Coalition
Illinois	Docket 94-0096	Customer's First Proposal	LDDS
Louisiana	Docket U-17949-D	Alternative Regulation	IXC Coalition
New York	Case No. 93-C-0103	Rochester Plan-Wholesale/Retail	LDDS
Illinois	Dockets 94-0043/46	Access Transport Rate Structure	IXC Coalition
Florida	Docket 92-1074-TP	Expanded Interconnection	Intermedia
Louisiana	Docket U-20800	Access Transport Rate Structure	LDDS
Tennessee	Docket 93-008865	Access Transport Rate Structure	LDDS

State	Docket/Case	Topic	Sponsor(s)
Ohio	Docket 93-487-TP-ALT	Alternative Regulation	Allnet/LCI/LDDS
Mississippi	Docket 93-UN-0843	Access Transport Rate Structure	LDDS
South Carolina	Docket 93-756-C	Access Transport Rate Structure	IXC Coalition
Georgia	Docket 4817-U	Access Transport Rate Structure	IXC Coalition
Louisiana	Docket U-20710	Imputation Standards	LDDS
Ohio	Case 93-230-TP-ALT	Alternative Regulation	MCI/Allnet/LCI
New Mexico	Docket 93-218-TC	Expanded Local Calling	LDDS
Illinois	Docket 92-0048	Alternative Regulation	LDDS
Mississippi	Docket 93-UN-0038	Banded Rates for Toll Service	LDDS
Florida	Docket 92-1074-TP	Expanded Interconnection	Florida Coalition
Louisiana	Docket U-20237	Preferential Toll Pricing	IXC Coalition
South Carolina	Docket 93-176-C	Expanded Local Calling	LDDS & MCI
Mississippi	Case 89-UN-5453	Rate Stabilization Plan	LDDS & ATC
Illinois	Docket 92-0398	Local Interconnection	CLEC Coalition
Louisiana	Docket U-19993	Payphone Compensation	MCI
Maryland	Docket 8525	Payphone Compensation	MCI
South Carolina	Docket 92-572-C	Payphone Compensation	MCI
Georgia	Docket 4206-U	Payphone Compensation	MCI
Delaware	Docket 91-47	Application for Rate Increase	MCI
Florida	Docket 88-0069-TL	Comprehensive Price Review	Florida Coalition
Mississippi	Case 92-UA-100	Expanded Local Calling	LDDS & ATC
Florida	Docket 92-0188-TL	GTE Rate Case	MCI & FIXCA
Wisconsin	Docket 05-TI-119	IntraLATA Competition	MCI & Schneider
Florida	Docket 92-0399-TP	Payphone Compensation	MCI & FIXCA
California	Docket I,87-11-033	Alternative Regulation	Intellical
Florida	Docket 88-0068-TL	Rate Stabilization	Public Counsel and Large Users
New York	Case 28425, Phase III	Access Transport Rate Structure	Empire Altel
Wisconsin	Docket 05-TR-103	Intrastate Access Charges	MCI & CompTel

State	Docket/Case	Topic	Sponsor(s)
Mississippi	Docket 90-UA-0280	IntraLATA Competition	Intellicall
Louisiana	Docket U-17949	IntraLATA Competition	Cable & Wireless
Florida	Docket 88-0069-TL	Rate Stabilization	Florida Coalition
Wisconsin	Docket 05-TR-103	Intrastate Access Charges	Wisconsin IXCs
Florida	Docket 89-0813-TP	Alternative Access Providers	Florida Coalition
Alaska	Docket R-90-1	Intrastate Toll Competition	Telephone Utilities of Alaska
Minnesota	Docket P-3007/NA-89-76	Centralized Equal Access	MCI & Telecom*USA
Florida	Docket 88-0812-TP	IntraLATA Toll Competition	Florida Coalition
Wisconsin	Docket 05-TR-102	Intrastate Access Charges	Wisconsin IXCs
Wisconsin	Docket 6655-NC-100	Centralized Equal Access	Wisconsin IXCs
Florida	Docket 88-0069-TL	Rate Stabilization	Florida Coalition
Wisconsin	Docket 05-NC-100	IntraLATA Toll Competition	Wisconsin IXCs
Florida	Docket 87-0347-TI	AT&T Regulatory Relief	Florida Coalition
Illinois	Docket 83-0142	Intrastate Access Charges	Illinois Consolidated
Texas	Docket 8218	WATS Prorate Credit	TEXALTEL
Iowa	Case RPU 88-2	Centralized Equal Access	MCI & Teleconnect
Florida	Docket 87-1254-TL	Regulatory Flexibility for LECs	Microtel
Wisconsin	Docket 05-TR-5, Part B	IntraLATA Competition and Access Charges	Wisconsin State Telephone Assc.
Florida	Docket 86-0984, Phase II	Intrastate Loop Cost Recovery	Florida Coalition

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska Public)	
Service Commission, on its own motion,)	Application No. NUSF-100 / PI-193
to consider revisions to the universal)	
service fund contribution methodology.)	

Certificate of Service

The undersigned hereby certifies that on this 24th day of March, 2017 an original and five (5) copies of the <u>Pre-Filed Initial Testimony of Joseph Gillan on Behalf of Charter Fiberlink – Nebraska, LLC and Time Warner Cable Information Services (Nebraska), LLC in this matter were hand-delivered to the Nebraska Public Service Commission, 300 The Atrium, 1200 N Street, Lincoln NE, and a copy of the same was e-mailed to:</u>

Nebraska Public Service Commission

psc.nusf-filings@nebraska.gov Sue Vanicek <u>sue.vanicek@nebraska.gov</u> Brandy Zierott <u>brandy.zierott@nebraska.gov</u>

Association of Teleservices International, Inc.

Matthew Ottemann <u>mottemann@mcgrathnorth.com</u> Nicholas K. Niemann <u>nniemann@mcgrathnorth.com</u>

Rural Independent Companies

Paul Schudel <u>@woodsaitken.com</u>
Thomas Moorman <u>tmoorman@woodsaitken.com</u>
James Overcash <u>jovercash@woodsaitken.com</u>

Rural Telecommunications Coalition of Nebraska

Andy Pollock <u>apollock@remboltlawfirm.com</u>
Troy Kirk <u>tkirk@remboltlawfirm.com</u>

Windstream Communications

Matthew Feil <u>matthew.feil@windstream.com</u> Steve Meradith stephen.meradith@windstream.com

Owest Corporation d/b/a Century Link QC

Jill Vinjamuri Gettman jgettman@gettmanmills.com Norman G. Curtright norm.curtright@centurylink.com

Cox Nebraska Telcom, LLC

Deonne Bruning deonnebruning@neb.rr.com

CTIA – The Wireless Association

Benjamin Aron baron@ctia.org

Matt DeTura <u>mdetura@ctia.org</u>
Bret A. Dublinske <u>bdublinske@fredlaw.com</u>

NE Colorado Cellular, Inc., d/b/a Viaero Wireless

Loel P. Brooks <u>lbrooks@brookspanlaw.com</u> Eric Preston <u>eric.preston@viaero.com</u>

Frontier Communications
Scott Bohler Scott.bohler@ftr.com

Russell A. Westerhold