#### Scott C. Lundquist Consultant to QSI Consulting, Inc.

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#### **Biography**

Mr. Lundquist serves as a consultant to QSI, performing regulatory, technical, and economic analysis, project management, and client support services for projects involving telecommunications regulation and economics. Prior to joining QSI in 2007, Mr. Lundquist served as a Vice President and Partner of Economics and Technology, Inc. (ETI), a Boston-based consulting firm. Over the course of his 36-year career in the field, Mr. Lundquist has participated in hundreds of contested state-level and federal telecommunications regulatory proceedings, often preparing and/or sponsoring expert testimony, reports, and comments. He has developed expertise in virtually all areas of modern telecommunications regulation and policy, including service costs and pricing, network interconnection, implementation of competition policies, incentive regulation, and next-generation broadband, enterprise and wireless services.

Mr. Lundquist has worked extensively with computerized cost models for telecommunications networks and services, including most of the major cost models introduced in U.S. regulatory proceedings. He also has participated in dozens of state PUC cases to apply incentive regulation to incumbent local exchange carriers, and advised on the criteria for when reduced regulation is appropriate. He has gained in-depth knowledge of all aspects of incentive regulation, including measurement of carrier productivity gains and the specification of productivity offsets, monitoring of service quality, indexing and pricing rules, and impacts on investment and innovation. In addition, Mr. Lundquist has substantial experience with traditional ratemaking issues, including general rate cases, revenue requirement and rate design, cost allocation, and tariffing matters. Other areas in which Mr. Lundquist has significant professional experience include universal service, broadband and Internet access issues, intercarrier compensation, and next-generation enterprise services for medium/large commercial and government users (SD-WAN, SASE, ZTA).

Mr. Lundquist has served as an expert witness on these types of issues in over 35 proceedings before 20 state public utility commissions. He regularly works with a wide range of clients including competitive services providers, consumer advocates, and regulatory commission staff. Mr. Lundquist has served as QSI's lead consultant on telecommunications matters to the New Mexico Attorney General's Office (NMAGO) for over a decade. Mr. Lundquist also has played a central role in QSI's work on behalf of the U.S. General Services Administration since 2011, including extensive analysis of carriers' invoiced taxes and fees, and co-authoring a series of white papers on new telecommunications technologies and their impacts on federal government agencies. He has also advised regulatory agencies and foreign ministries on regulatory practices, and has developed and undertaken on-site training programs for regulatory staff in China and the Philippines.





#### **Educational Background**

### **Bachelor of Arts, Psychology and Social Relations**

Harvard College – Cambridge, Massachusetts 1985

#### **Professional Experience**

**QSI Consulting, Inc.** 

June 2007 – Present

Consultant

**Independent Consultant** 

Jan. 2005 – May 2007

Economics and Technology, Inc. Boston, Massachusetts

2002 - 2004

Vice President, Equity Partner, and

Board of Directors member

1996 - 2001

Vice President

1988 - 1996

Consultant / Senior Consultant

1986 - 1988

Analyst / Senior Analyst



#### **Selected Reports**

The following are several illustrative QSI reports to which Mr. Lundquist contributed substantial research, analysis, and/or writing.

Bringing Zero Trust Architecture Solutions to EIS Customers: Market Research and Pricing Models, prepared by QSI for the U.S. General Services Administration, November 2022.

*Network-as-a-Service (NaaS) Overview and Ordering Guide*, prepared by QSI on behalf of the U.S. General Services Administration. January 2021.

QSI Evaluation of Frontier's Second Quarter Service Quality Metrics Report, prepared for the Minnesota Department of Commerce and filed in MNPUC Docket P405-P407/CI-18-122, October 2020.

SD-WAN Overview and Ordering Guide, for Enterprise Infrastructure Solutions (EIS), version 2.0, prepared by QSI for the U.S. General Services Administration, August 2020.

SD-WAN Implementation Guide, for Enterprise Infrastructure Solutions (EIS), prepared by QSI for the U.S. General Services Administration, October 2019.

Modernizing Communications Infrastructure in Federal Buildings: Strategies for Managing Technology Transition for Building Management and Life Safety Applications, prepared by QSI for the U.S. General Services Administration, November 2018.

Network Services 2025, Strategic Telecommunications Planning & Analysis: Industry Trends and Emerging Technologies and the Potential Impact on Federal Acquisitions, prepared by QSI for the U.S. General Services Administration, December 2017.

Audit Report: The Efficiency and Effectiveness of the Kansas Universal Service Fund, prepared by OSI for the Kansas Department of Revenue, October 2014.

The Ohio Telecom Modernization Act (S.B. 162): Examining the Impacts of Telecom Deregulation on Ohio's Economy and Residential Consumers, prepared by QSI for the Ohio Consumers' Counsel, June 2012.

Verizon Networx Universal – CDRL 106 for March 31, 2011: An Analysis of State and Local Taxes/Surcharges Applied to US Government Invoices, prepared by QSI on behalf of the U.S. General Services Administration, December 2011.



#### **Expert Testimony – Profile**

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

### Before the Alabama Public Service Commission Docket No. 27178

Re: Generic Proceeding: Costs and Rates of BellSouth's Operations Support System (OSS)

On behalf of National ALEC Association/Prepaid Communications Association

Direct Testimony May 20, 2000

Cross-examination June 13, 2000

# Before the California Public Utilities Commission Application 01-12-026

Re: Global NAPs, Inc. Petition for Arbitration of an Interconnection Agreement with Verizon California Inc. F/K/A GTE California, Inc. (U-6449-C) Pursuant to Section 252(b) of the Telecommunications Act of 1996

On behalf of Global NAPs, Inc.

Direct Testimony December 20, 2001 Cross-examination February 11, 2002

# **Before the California Public Utilities Commission Application 01-11-045**

In Re: Petition by GNAPS, Inc. for Arbitration of an Interconnection Agreement with Pacific Bell Telephone Company Pursuant to Section 252(b) of the Telecommunications Act of 1996 On behalf of Global NAPs, Inc.

Direct Testimony November 30, 2001 Cross-examination February 11, 2002

## Before the California Public Utilities Commission Docket No. 98-11-024

Re: Petition by Pacific Bell (U 1001 C) for Arbitration of an Interconnection Agreement with Pac-West Telecom, Inc. (U 5266 C) Pursuant to Section 252(b) of the Telecommunications Act of 1996

On behalf of Pac West Telecom, Inc.

Direct Testimony February 8, 1999 Cross-examination February 24, 1999

# Before the California Public Utilities Commission Docket No. A.96-08-41

Re: Petition of AT&T Communications of California, Inc. for Arbitration Pursuant to Section 252 of the Federal Telecommunications Act of 1996 to Establish an Interconnection Agreement with GTE California, Inc.

On behalf of AT&T of California, Inc.

Oral Testimony October 3, 1996



## Before the Connecticut Public Utilities Commission Docket No. 95-06-17

Re: Application of SNET for Approval to Offer Unbundled Loops, Ports, and the Associated Interconnection Arrangements and Application of SNET for Approval to Offer Wholesale Local Basic Service and Certain Related Features and to Implement a Universal Service Fund On behalf of New England Cable Television Association

Direct Testimony September 8, 1995

## Before the Delaware Public Service Commission Docket No. 02-235

Re: Global NAPs, Inc. Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Verizon Delaware Inc. f/k/a Bell Atlantic-Delaware, Inc.

On behalf of Global NAPs, Inc.

Direct Testimony
Rebuttal Testimony
October 2, 2002
Cross-examination
October 4, 2002

### Before the District of Columbia Public Service Commission Formal Case No. 1011

Re: In the Matter of Review by the Commission Into Verizon DC's Compliance with the Conditions of 47 U.S.C. §271(c)

On behalf of the Office of People's Counsel of the District of Columbia

Affidavit September 30, 2002

Cross-examination waived

# Before the Federal Communications Commission, Washington, D.C. CC Docket No. 01-318, CC Docket No. 98-56, et al

Re: Performance Measurements and Standards for Unbundled Network Elements and Interconnection; and

Performance Measurements and Reporting Requirements For Operations Support Systems, Interconnection, and Operator Services and Directory Assistance

On behalf of Focal Communications Corp., Pac-West Telecomm, Inc., and US LEC Corp. Declaration

January 21, 2002

### Before the Hawaii Public Utilities Commission Docket No. 7702

Re: Instituting a Proceeding on Communications, Including an Investigation of the Communications Infrastructure of the State of Hawaii

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

Rebuttal Testimony August 28, 1997 Cross-examination October 17, 1997



### Before the Illinois Commerce Commission Docket No. 02-0253

Re: Global NAPs Illinois, Inc. Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Verizon North Inc. f/ka/ GTE North Incorporates and Verizon South Inc. f/k/a GTE South Incorporated On behalf of Global NAPs, Inc.

Direct Testimony May 16, 2002
Rebuttal Testimony June 4, 2002
Cross-examination June 11, 2002

## Before the Illinois Commerce Commission Docket No. 01-0786

Re: Petition of Global NAPs, Inc. for Arbitration Pursuant to Section 252(b) of The Telecommunications Act of 1996 to Establish an Interconnection Agreement with Illinois Bell Telephone Company d/b/a Ameritech Illinois

On behalf of Global NAPs, Inc.

Direct Testimony December 28, 2001

Cross-examination waived

### **Before the Maryland Public Service Commission**

**Case No. 9123** 

In the Matter of the Commission's Inquiry Into Verizon Maryland Inc.'s Provision of Local Exchange Telephone Service Over Fiber Optic Facilities

On behalf of the Maryland Office of People's Counsel

Direct Testimony
Rebuttal Testimony
Surrebuttal Testimony
Cross-examination
June 19, 2008
July 17, 2008
August 12, 2008
August 26, 2008

### Before the Maryland Public Service Commission Case No. 8879

Re: Investigation into Rates for Unbundled Network Elements Pursuant to the Telecommunications Act of 1996

On behalf of the Maryland Office of People's Counsel

Rebuttal TestimonySeptember 5, 2001Surrebuttal TestimonyOctober 15, 2001Cross-examinationDecember 7, 2001

### Before the Massachusetts Department of Telecommunications and Energy DTE 01-70

Re: Complaint of Fiber Technologies Networks, LLC Pursuant to G.L.c. 166 § 45.00 et seq. Regarding access to poles owned or controlled by Shrewsbury's Electric Light Plant On behalf of Fiber Technologies Networks, LLC

Direct Testimony November 9, 2001

Cross-examination waived



## Before the Minnesota Public Utilities Commission, Office of Administrative Hearings PUC Docket No. P-421/CI-01-1371

Re: In the Matter of a Commission Investigation into Qwest's Compliance with Section 271(c)(2)(B) of the Telecommunications Act of 1996: Checklist Items 1, 2, 4, 5, 6, 11, 13, and 14, On behalf of the Minnesota Department of Commerce

Affidavit June 10, 2002 Cross-examination September 9, 2002

### Before the Minnesota State Office of Administrative Hearings for the Minnesota Public Utilities Commission

#### PUC Docket No. P-421/CI-01-1370, OAH Docket No. X-2500-14485-2

Re: Commission Investigation into Qwest's Compliance with Section 271(c)(2)(B) of the Telecommunications Act of 1996: Checklist Items 3, 7, 8, 9, 10 and 12

On behalf of the Minnesota Department of Commerce

Affidavit January 28, 2002 Cross-examination March 6, 2002

#### **Before the Nevada Public Utilities Commission**

Docket No. 01-10018

Re: Petition of Global NAPs, Inc. for the Arbitration of an Interconnection Agreement with Central Telephone Company - Nevada, d/b/a Sprint of Nevada, Pursuant to Section 252 of the Telecommunications Act of 1996,

On behalf of Global NAPs, Inc.

Direct Testimony December 4, 2001

Cross-examination waived

## Before the Nevada Public Service Commission Docket No. 96-9035

Re: A Petition by the Regulatory Operations Staff to Open an Investigation into the Procedures and Methodologies that Should Be Used to Develop Costs for Bundled or Unbundled Telephone Services or Service Elements in the State of Nevada

On behalf of AT&T Communications of Nevada

Direct TestimonyMay 9, 1997Rebuttal TestimonyMay 23, 1997Cross-examinationJune 11, 1997

### Before the New Jersey Board of Public Utilities Docket No. TO00060356

Re: Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic-New Jersey, Inc.

On behalf of the State of New Jersey, Division of the Ratepayer Advocate

Direct Testimony October 12, 2000 Cross-examination January 26, 2001



#### Before the New Jersey Board of Public Utilities

Docket No. TO99120934

Re: Application of Bell Atlantic-New Jersey, Inc. for Approval of a Modified Plan for an Alternative Form of Regulation and to Reclassify All Rate Regulated Services as Competitive Services

On behalf of the State of New Jersey, Division of the Ratepayer Advocate

Direct Testimony September 8, 2000

Cross-examination waived

#### Before the North Carolina Utilities Commission Docket No. P-1141 Sub1

Re: Global NAPs North Carolina, Inc. Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Verizon South, Inc. f/ka/ GTE South Incorporated

On behalf of Global NAPs, Inc., Direct Testimony April 19, 2002

Rebuttal filed May 24, 2002 Cross-examination July 23, 2002

### Before the North Dakota Public Service Commission Case No. PU-08-61 / PU-08-176

Re: Midcontinent Communications, a South Dakota partnership, Complainant v. Missouri Valley Communications, Inc., Respondent; and Missouri Valley Communications, Inc. Application for Suspension or Modification Pursuant to 47 U.S.C. § 251(F)(2)

On behalf of Midcontinent Communications

Direct Testimony
Cross-examination
July 2, 2008
July 9, 2008

### Before the Ohio Public Utilities Commission Case No. 02-876-TP-ARB

Re: In the Matter of Global NAPs, Inc. Petition for Arbitration Pursuant to 47 U.S.C. §252(b) of Interconnection Rates, Terms and Conditions with Verizon North Inc. f/k/a GTE North

Direct Testimony

Cross-examination

May 30, 2002

June 6, 2002

#### Before the Ohio Public Utilities Commission Case No. 01-3096-TP-ARB / Case No. 01-2811-TP-ARB

Re: Global NAPs, Inc. Petition for Arbitration Pursuant to 47 U.S.C. § 252(b) of Interconnection Rates, Terms and Conditions with Ohio Bell Telephone Company d/b/a Ameritech Ohio; and Global NAPs, Inc. Petition for Arbitration Pursuant to 47 U.S.C. § 252(b) of Interconnection Rates, Terms and Conditions with United Telephone Company of Ohio d/b/a Sprint On behalf of Global NAPs, Inc.

Direct Testimony February 12, 2002 Cross-examination February 19, 2002



## Before the Ohio Public Utilities Commission Docket No. 96-922-TP-UNC

Re: Review of Ameritech Ohio's Economic Costs for Interconnection, Unbundled Network Elements, and Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic

On behalf of the Ohio Consumers' Counsel

Direct Testimony January 17, 1997

## Before the Rhode Island and Providence Plantations Public Utilities Commission Docket No. 3437

Re: Global NAPs, Inc. Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish and Interconnection Agreement with Verizon New England, Inc. d/b/a Verizon Rhode Island, Inc. f/k/a New England Telephone & Telegraph Co. d/b/a Bell Atlantic - Rhode Island

On behalf of Global NAPs, Inc.

Direct Testimony
Rebuttal Testimony
Cross-examination
August 28, 2002
September 6, 2002
September 26, 2002

# Texas Public Utilities Commission Docket No. 18509

Re: Public Utility Commission, Application of Southwestern Bell Telephone Company for Rate Group Re-Classification Pursuant to Section 58.058 of the Texas Utility Code

On behalf of the Texas Office of Public Utility Counsel

Direct Testimony August 18, 1998 Cross-examination September 9, 1998

#### **Before the Vermont Public Service Board**

Docket No. 6742

Re: Global NAPs, Inc. Petition For Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Verizon New England, Inc. d/b/a Verizon Vermont, Inc. f/k/a New England Telephone & Telegraph Co. d/b/a Bell Atlantic – Vermont

On behalf of Global NAPs, Inc.

Direct Testimony
Rebuttal Testimony
October 7, 2002
Cross-examination
October 25, 2002

### Before the Vermont Public Service Board Docket No 6209

Re: Investigation Into The Acquisition and Use of Central Office Codes by Local Exchange Carriers in Vermont

On behalf of Global NAPs, Inc.

Affidavit October 17, 2002



### Before the Washington Utilities and Transportation Commission Docket No. UT-023003

Re: In the Matter of the Review of: Unbundled Loop and Switching Rates; the Deaveraged Zone Rate Structure; and Unbundled Network Elements, Transport, and Termination (Recurring Costs)

On behalf of AT&T Communications of the Pacific Northwest, Inc.

Responsive Testimony April 20, 2004 Cross-examination May 28, 2004

### Before the Washington Utilities and Transportation Commission Docket No. UT-950200

Re: In the Matter of the Request of US West Communications, Inc. for the Increase in its Rates and Charges

On behalf of Washington Utilities and Transportation Commission Staff

Direct Testimony August 11, 1995 Cross-examination January 15, 1996

# Before the Washington Utilities and Transportation Commission Docket No. UT-941464, et al

Re: WUTC, Complainant vs. US West, Respondent; TGC Seattle and Digital Direct of Seattle, Inc., Complaint vs. US West, Respondent; TCG Seattle, Complainant v. GTE Northwest, Inc., Respondent; GTE Northwest, Inc., Third Party Complainant v. US West, Third Party Respondent; Electric Lightwave, Inc., Complaint v. GTE Northwest, Inc., Respondent On behalf of Staff of the Washington Utilities and Transportation Commission Direct Testimony

April 17, 1995

# Before the Washington Utilities and Transportation Commission Docket Nos. U-89-2698-F, U-89-3245-P

Re: Washington Utilities and Transportation Commission, Complainant vs. US WEST Communications, Inc., Respondent; Application of US WEST Communications, Inc., for an Alternative Form of Regulation

On behalf of TRACER

Direct Testimony
Cross-examination

June 23, 1993
July 1, 1993

## Before the Wisconsin Public Service Commission Docket No. 5846-TR-102

Re: Application of CenturyTel of Central Wisconsin, LLC, as a Telecommunications Utility, for Authority to Establish Permanent Telephone Rates, Docket No. 2055-TR-102; Application of Telephone USA of Wisconsin, LLC, as a Telecommunications Utility, for Authority to Establish Permanent Telephone Rates

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

Direct Testimony May 31, 2002
Rebuttal Testimony June 21, 2002
Cross-examination June 26, 2002

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# Before the Wisconsin Public Service Commission Docket No. 2815-TR-103

Re: Application of CenturyTel of the Midwest-Kendall, Inc. for Rate Increase and Petition for Emergency Order for Rate Increase

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

Direct Testimony

Rebuttal Testimony

June 19, 2001

July 3, 2001

Cross-examination waived