



**Jason D. Topp**  
Associate General Counsel - Regulatory  
(651) 312-5364

December 4, 2014

Dr. Burl W. Haar  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, MN 55101

**Re: In the Matter of a Rulemaking to Consider Possible Amendments to  
Minnesota Rules, parts 7810.4100 through 7810.6100  
Docket No. P-999/R-14-413**

Dear Dr. Haar:

Enclosed for filing are the following regarding the above-referenced matter:

1. Comments of CenturyLink;
2. Affidavit of Robert Brigham; and
3. Affidavit of Dr. Brian K. Staihr.

Very truly yours,

/s/ Jason D. Topp

Jason D. Topp

JDT/bardm

Enclosures

cc: Service List

**STATE OF MINNESOTA  
BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

Beverly Jones Heydinger	Chair
David Boyd	Commissioner
Nancy Lange	Commissioner
Dan Lipschultz	Commissioner
Betsy Wergin	Commissioner

**Re: In the Matter of a Rulemaking to Consider Possible Amendments to  
Minnesota Rules, parts 7810.4100 through 7810.6100  
Docket No. P-999/R-14-413**

AFFIDAVIT OF SERVICE

STATE OF MINNESOTA    )  
  ) ss  
COUNTY OF HENNEPIN    )

Dianne Barthel hereby certifies that on the 4th day of December, 2014, she e-filed true and correct copies of Comments of CenturyLink, Affidavit of Robert Brigham and Affidavit of Dr. Brian K. Staihr by posting them on [www.edockets.state.mn.us](http://www.edockets.state.mn.us). Said documents were also served on the service list via U.S. mail and e-mail as designated with the Minnesota Public Utilities Commission.

/s/ Dianne Barthel \_\_\_\_\_  
Dianne Barthel

Subscribed and sworn to before me  
this 4th day of December, 2014.

/s/ LeAnn M. Cammarata \_\_\_\_\_  
Notary Public

My Commission Expires Jan 31, 2020

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_14-413_Official
Scott	Bohler	scott.bohler@ftr.com	Frontier Communications Corporation	2378 Wilshire Blvd  Mound, MN 55364-1652	Electronic Service	No	OFF_SL_14-413_Official
Linda	Chavez	linda.chavez@state.mn.us	Department of Commerce	85 7th Place E Ste 500  Saint Paul, MN 55101-2198	Electronic Service	No	OFF_SL_14-413_Official
Ron	Elwood	relwood@mnlsap.org	Mid-Minnesota Legal Aid	2324 University Ave Ste 101  Saint Paul, MN 55114	Electronic Service	No	OFF_SL_14-413_Official
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_14-413_Official
Deborah L.	Kuhn	deborah.kuhn@verizon.com	VERIZON	Suite 700 205 North Michigan Avenue Chicago, IL 60601	Electronic Service	No	OFF_SL_14-413_Official
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	OFF_SL_14-413_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Steve	Abbott	telecom-mgt@stolaf.edu	St. Olaf College	1520 St. Olaf Avenue  Northfield, MN 55057	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jamie	Adams	jamieadams@fdlrez.com	Fond Du Lac Reservation Business Community	1720 Big Lake Road  Cloquet, MN 55720	Paper Service	No	SPL_SL_14-413_Initial Notice
Registered	Agent	N/A	LSSI Data Corp.	c/o CT Corporation System, Inc. 100 So. 5th Street, Suite 1075 Minneapolis, MN 55402	Paper Service	No	SPL_SL_14-413_Initial Notice
Francis X	Ahearn	fahearn@mcgrawcom.net	McGraw Communications, Inc.	521 5th Ave Floor 14  New York, NY 10175-1200	Electronic Service	No	SPL_SL_14-413_Initial Notice
Michael	Ahern	ahern.michael@dorsey.com	Dorsey & Whitney, LLP	50 S 6th St Ste 1500  Minneapolis, MN 554021498	Electronic Service	No	SPL_SL_14-413_Initial Notice
Deborah	Allison	dallison@paulbunyan.net	BI-CAP, Inc.	PO Box 579  Bemidji, MN 566010579	Paper Service	No	SPL_SL_14-413_Initial Notice
Kristine	Anderson	kanderson@jagcom.net	Jaguar Communications, Inc.	213 S Oak Ave Ste 2000  Owatonna, MN 55060	Electronic Service	No	SPL_SL_14-413_Initial Notice
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	SPL_SL_14-413_Initial Notice
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St  Duluth, MN 558022191	Electronic Service	No	SPL_SL_14-413_Initial Notice
Arnie	Anderson	ArnieAnderson@MinnCAP.org	Minnesota Community Action Partnership	MCIT Building 100 Empire Drive, Suite 202 St. Paul, MN 55103	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Mark J.	Angell		Angell And Associates	1075 Rosewood Drive  Grapevine, TX 76051	Paper Service	No	SPL_SL_14-413_Initial Notice
Deborah S.	Arnott		IG2, Inc.	5018 196th Street  Fresh Meadows, NY 113651319	Paper Service	No	SPL_SL_14-413_Initial Notice
Greg	Arvig	GARVIG@NEXTERA.NET	Nextera Communications	Suite 100 7115 Forthum Rd Baxter, MN 56425	Electronic Service	No	SPL_SL_14-413_Initial Notice
Issa	Asad	N/A	Q Link Wireless LLC	499 E Sheridan St Ste 300  Dania Beach, FL 33004	Paper Service	No	SPL_SL_14-413_Initial Notice
Merton	Auger	merton.auger@ci.buffalo.mn.us	City Of Buffalo	212 Central Avenue  Buffalo, MN 55313	Electronic Service	No	SPL_SL_14-413_Initial Notice
Roger	Avelsgard	ravelsgard@breckenridgemn.net	City of Breckenridge Utilities	420 Nebraska Avel  Breckenridge, MN 56520	Electronic Service	No	SPL_SL_14-413_Initial Notice
Joseph	Ayers	joe.ayers@tccaction.com	Tri-County Community Action (TCC)	501 LeMieur Street  Little Falls, MN 56345-3367	Paper Service	No	SPL_SL_14-413_Initial Notice
Connie	Bagley	connie@semaaarochestermn.org	Southwestern Minnesota AAA	421 SW First Avenue, Room 201  Rochester, MN 55902	Paper Service	No	SPL_SL_14-413_Initial Notice
David	Bailey	dbailey@bullseyetelecom.com	BullsEye Telecom, Inc.	25925 Telegraph Rd Ste 210  Southfield, MI 48033	Electronic Service	No	SPL_SL_14-413_Initial Notice
James T	Balvanz	N/A	Boomerang Wireless LLC	955 Kacena Rd Ste A  Hiawatha, IA 52233	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Jim	Beattie	N/A	Pine Island Telephone Company	123 W 7th St Blue Earth, MN 56013	Paper Service	No	SPL_SL_14-413_Initial Notice
Jim	Beattie	N/A	Cannon Valley Telecom, Inc.	123 W 7th St Blue Earth, MN 56013	Paper Service	No	SPL_SL_14-413_Initial Notice
Jim	Beattie	N/A	Blue Earth Valley Telephone Co.	123 West 7th Street Blue Earth, MN 56013	Paper Service	No	SPL_SL_14-413_Initial Notice
Jim	Beattie	N/A	Easton Telephone Co.	123 West 7th Street Blue Earth, MN 56013	Paper Service	No	SPL_SL_14-413_Initial Notice
Jim	Beattie	N/A	Granada Telephone Company	123 W 7th St. Blue Earth, MN 56013	Paper Service	No	SPL_SL_14-413_Initial Notice
Jim	Beattie	N/A	Eckles Telephone Company dba BEVCOMM	123 West 7th Street Blue Earth, MN 56013	Paper Service	No	SPL_SL_14-413_Initial Notice
James	Beattie	jbeattie@bevcomm.com	Rural Communications Holding Corp.	123 W 7th Street Blue Earth, MN 56013	Electronic Service	No	SPL_SL_14-413_Initial Notice
Robert	Benes	bobb@lakesandpines.org	Lakes and Pines Community Action Council	1700 Maple Avenue East More, MN 55051-1227	Paper Service	No	SPL_SL_14-413_Initial Notice
Jim	Benning	jbenning@duluthmn.gov	City of Duluth	Room 202 411 West First Street Duluth, MN 55802	Paper Service	No	SPL_SL_14-413_Initial Notice
Dirk	Berger	dberger@bevcomm.com	BEVCOMM Eckles Telephone Company	115 Main Street W. New Prague, MN 56071	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Kyle	Bertrand	kbertrand@broadvox.com	Broadvox-CLEC, LLC	75 Erieview Plaza Suite 400 Cleveland, OH 44114	Electronic Service	No	SPL_SL_14-413_Initial Notice
Kevin	Beyer	kbeyer@fedtel.net	Farmers Mutual Telephone Company	301 2nd St S  Bellingham, MN 56212-1000	Electronic Service	No	SPL_SL_14-413_Initial Notice
Kevin	Beyer	mnpucnotices@fedtel.net	Federated Telephone Cooperative	405 2nd Street East PO Box 156 Chokio, MN 56221	Electronic Service	No	SPL_SL_14-413_Initial Notice
Fazil	Bhimani	fazilb@aol.com	LightNet LLC	2790 Quebec Court  Little Canada, MN 55117	Electronic Service	No	SPL_SL_14-413_Initial Notice
David	Bickett	dave.bickett@parkregion.com	Otter Tail Telcom	PO Box 277 100 Main St Underwood, MN 56586	Electronic Service	No	SPL_SL_14-413_Initial Notice
David	Bickett		Park Region Mutual Telephone Co.	PO Box 277 100 Main Street Underwood, MN 56586	Paper Service	No	SPL_SL_14-413_Initial Notice
David	Bickett		Valley Telephone Co.	PO Box 277 100 Main Street Underwood, MN 56586	Paper Service	No	SPL_SL_14-413_Initial Notice
Carl	Billek, Esq.	carl.billek@idt.net	IDT America Corp.	550 Broad St 17th Fl 520 Broad Street Newark, NJ 07102	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mark	Birkholz	N/A	Clements Telehone Company	150 2nd St. SW  Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
Mark	Birkholz	N/A	Melrose Telephone Company	150 Second St. SW  Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Mark	Birkholz	N/A	Mainstreet Communications, LLC	150 Second St. SW Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
Mark	Birkholz	N/A	Home Telephone Company	150 2nd St. SW Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
Mark	Birkholz	N/A	Redwood County Telephone Company	160 Second Avenue SW Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
Mark	Birkholz	N/A	Midwest Information Systems, Inc.	150 Second Street SW Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
Mark	Birkholz	N/A	Osakis Telephone	150 2nd St. SW Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
Arlyn	Birkholz	bademailbirkholz@access-com.net	Access Communications Inc	5005 Cheshire Parkway N., Suite 1 Plymouth, MN 55446	Paper Service	No	SPL_SL_14-413_Initial Notice
Bruce	Bjerke	bbjerke@minnkota.com	Clearwater-Polk Electric	315 Main Avenue North PO Box O Bagley, MN 566211001	Electronic Service	No	SPL_SL_14-413_Initial Notice
Nancy	Blankenhagen	nancyblankenhagen@nu-telcom.net	New Ulm Telecom Inc.	P.O. Box 697 27 N. Minnesota Street New Ulm, MN 560730697	Electronic Service	No	SPL_SL_14-413_Initial Notice
Liam	Bohan	liam.bohan@ftthcom.com	FTTH Communications L.L.C.	c/o EveresTV Two Executive Drive, Ste 635 Fort Lee, NJ 07024	Electronic Service	No	SPL_SL_14-413_Initial Notice
Scott	Bohler	scott.bohler@ftr.com	Frontier Communications Corporation	2378 Wilshire Blvd Mound, MN 55364-1652	Electronic Service	No	SPL_SL_14-413_Initial Notice



First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Richard M.	Boudria	dboudria@bcntele.com	BCN Telecom, Inc.	107 W Michigan Ave FL 4  Kalamazoo, NJ 49007	Electronic Service	No	SPL_SL_14-413_Initial Notice
Kathy	Boutwell	kathyb@chriscomco.net	Christensen Communications Co	104 Main Street West  Madelia, MN 56062	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jim	Bowers	N/A	North St. Paul Public Works	2400 Margaret St. N.  St. Paul, MN 55109-3020	Paper Service	No	SPL_SL_14-413_Initial Notice
Michael	Bradley	mike.bradley@lawmoss.com	Moss & Barnett	150 S. 5th Street, #1200  Minneapolis, MN 55402	Electronic Service	No	SPL_SL_14-413_Initial Notice
Carolina	Bradpiece	cbradpiece@capagency.org	Community Action Partnership of Scott,	Carver and Dakota Counties 712 Canterbury Road South Shakopee, MN 55379	Paper Service	No	SPL_SL_14-413_Initial Notice
Lisa	Brickner	lbrickner@grandportage.com	Grand Portage Reservation Tribal Council	83 Stevens Road, P.O. Box 428  Grand Portage, MN 55605	Paper Service	No	SPL_SL_14-413_Initial Notice
Mark B.	Bring	mbring@otpc.com	Otter Tail Power Company	215 South Cascade Street PO Box 496 Fergus Falls, MN 565380496	Electronic Service	No	SPL_SL_14-413_Initial Notice
Paul	Brinkman	paulb@nesc.k12.mn.us	Northeast Service Cooperative	5525 Emerald Ave  Mountain Iron, MN 55768-2068	Electronic Service	No	SPL_SL_14-413_Initial Notice
Tim	Brinkman	tim.brinkman@parkregion.com	Park Region Mutual Telephone Co.	100 Main Street PO Box 277 Underwood, MN 56586	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Vera	Brown	vbrown@mnochippewatribe.org	Minnesota Chippewa Tribe AAA	PO Box 217 Cass Lake, MN 56633	Paper Service	No	SPL_SL_14-413_Initial Notice
Diane	Browning	diane.c.browning@sprint.com	Sprint Corporation	KSOPHN0314-3A459 6450 Sprint Pkwy Overland Park, KS 66251	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mary	Buley	mary.buley@onvoy.com	Onvoy, LLC	10300 6th Ave N  Plymouth, MN 55441	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mary	Buley	N/A	Minnesota Independent Equal Access Corp.	10300 6th Ave N  Plymouth, MN 55441	Paper Service	No	SPL_SL_14-413_Initial Notice
Christopher	Bunce	cbunce@birch.com	Ionex Communications North, Inc.	2323 Grand Blvd Ste 925  Kansas City, MO 64108	Electronic Service	No	SPL_SL_14-413_Initial Notice
Richard G.	Burud	burud@federatedrea.coop	Federated Rural Electric Assoc.	PO Box 69 77100 US Highway 71 Jackson, MN 56143	Electronic Service	No	SPL_SL_14-413_Initial Notice
Danny	Busche	dannybusche@live.com	Winthrop Telephone Company	318 2nd Ave E PO Box 310 Franklin, MN 55333-0310	Electronic Service	No	SPL_SL_14-413_Initial Notice
Danny	Busche	dannyb@means.net	Minnesota Valley Telephone Company	318 Second Ave East P O Box 310 Franklin, MN 55333-0310	Electronic Service	No	SPL_SL_14-413_Initial Notice
Lance	Casey	lance.casey@consolidated.com	Consolidated Communications	N/A	Electronic Service	No	SPL_SL_14-413_Initial Notice
Linda	Chavez	linda.chavez@state.mn.us	Department of Commerce	85 7th Place E Ste 500  Saint Paul, MN 55101-2198	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Peter	Chevalier	peter.chevalier@zayo.com	Zayo Enterprise Networks, LLC	400 Centennial Pkwy Ste 200  Louisville, CO 80027	Electronic Service	No	SPL_SL_14-413_Initial Notice
Olson	Chris	wcphone@wcta.net	West Central Telephone Assoc.	P.O. Box 304 308 Frontage Road Sebeka, MN 56477	Electronic Service	No	SPL_SL_14-413_Initial Notice
Linda J.	Cicco	N/A	BT Americas Inc.	11440 Commerce Park Drive  Reston, VI 20191	Paper Service	No	SPL_SL_14-413_Initial Notice
Cathy	Clucas	cathy.clucas@centurylink.com	CenturyLink	200 South 5th St Room 2300  Minneapolis, MN 55402	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jules	Coffman	jcoffman@pngmail.com	PNG Telecommunications, Inc.	8805 Governors Hill Dr Ste 250  Cincinnati, OH 45249-3312	Electronic Service	No	SPL_SL_14-413_Initial Notice
Regulatory	Contact	wci.regulatory@windstream.com	Windstream Communications, Inc.	600 Willowbrook Office Park  Fairport, NY 14450	Electronic Service	No	SPL_SL_14-413_Initial Notice
Geoff	Cookman	regulatory@granitenet.com	Granite Telecommunications, LLC	100 Newport Avenue Ext  Quincy, MA 02171	Electronic Service	No	SPL_SL_14-413_Initial Notice
Rod	Cox	rod.cox@tdsmetro.com	TDS Metrocom	Suite 6000 525 Junction Road Madison, WI 53717	Electronic Service	No	SPL_SL_14-413_Initial Notice
Patrick D.	Crocker	contact@nationwideregulatorycompliance.com	CROCKER & CROCKER	The Kalamazoo Building 107 West Michigan, 4th Floor Kalamazoo, MI 490074752	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Allen	Crowser	acrowser@rea-alp.com	Alexandria Light and Power	316 Fillmore Street P. O. Box 609 Alexandria, MN 563080609	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jie	Cui	jcui@oncommunications.com	CTC Communications Corp. d/b/a EarthLink Business	225 Cedar Hill St Ste 111  Marlborough, MA 01752	Electronic Service	No	SPL_SL_14-413_Initial Notice
Greg	Darnell	greg.darnell@cbeyond.net	Cbeyond Communications	320 Interstate North Pkwy SE  Ste 300 Atlanta, GA 30339-2205	Electronic Service	No	SPL_SL_14-413_Initial Notice
Haleh	Davary	haleh.davary@verizon.com	Verizon	c/o VERIZON 201 Spear St FL 7 San Francisco, CA 94105	Electronic Service	No	SPL_SL_14-413_Initial Notice
William	Davis	lkurth@campis.org	Community Action of Minneapolis	505 East Grant St Ste 100 Minneapolis, Minnesota 55405	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jean	Dawson		MN Government Report	B-12 Press Room State Capitol St. Paul, MN 55155	Paper Service	No	SPL_SL_14-413_Initial Notice
Dennis	DeMers	dpd@tvoc.org	Tri-Valley Opportunity Council	102 North Broadway, P.O. Box 607  Crookston, MN 56716	Paper Service	No	SPL_SL_14-413_Initial Notice
Jennifer	DePinto	N/A	Reliant Communications, Inc.	801 International Pkwy Suite 500 Lake Mary, FL 32746	Paper Service	No	SPL_SL_14-413_Initial Notice
Linda	Dellaero	ldellaero@matrixbt.com	Matrix Telecom, Inc.	433 E Las Colinas Blvd Ste 400  Irving, TX 75039	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Steve	DenHerder	sdenherder@lightedge.com	LH TELECOM, INC.	215 10th Street Suite 1220 Des Moines, IA 50309	Electronic Service	No	SPL_SL_14-413_Initial Notice
Legal	Department	N/A	ACN Communication Services, Inc.	1000 Progress Place  Concord, NC 28025	Paper Service	No	SPL_SL_14-413_Initial Notice
Ramona R.	Desjarlait	ramonad@paulbunyan.net	Red Lake Band of Chippewa Indians	PO Box 190  Red Lake, MN 56671	Paper Service	No	SPL_SL_14-413_Initial Notice
Ralph	Dichy	rdichy@mettel.net	Metropolitan Telecommunications of Minnesota, Inc. dba MetTel	55 Water St FL 31  New York, NY 10041	Electronic Service	No	SPL_SL_14-413_Initial Notice
Shannon	Dieringer	sdieringer@firstcomm.com	First Communications LLC	3340 West Market Street  Akron, OH 44333	Electronic Service	No	SPL_SL_14-413_Initial Notice
Executive	Director		League Of MN Cities	145 University Avenue West  St Paul, MN 551032044	Paper Service	No	SPL_SL_14-413_Initial Notice
Elaine	Divelbliss	N/A	Virgin Mobile USA, L.P.	10 Independence Blvd  Warren, NJ 07059	Paper Service	No	SPL_SL_14-413_Initial Notice
Loretta	Dixon	loretta.dixon@lowersiouxc om	Lower Sioux Indian Community	39527 Res Highway 1 PO Box 308 Morton, MN 39527	Paper Service	No	SPL_SL_14-413_Initial Notice
Linda	Dobinson	linda.dobinson@telcologix. com	Telcologix, LLC	209 W. 1st Street Suite 200 Duluth, MN 55802	Electronic Service	No	SPL_SL_14-413_Initial Notice
Liza	Donabauer	ldonabauer@arlingtonmn.c om	City of Arlington	204 Shamrock Drive  Arlington, MN 55307	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Steve	Downer	sdowner@mmua.org	MMUA	3025 Harbor Ln N Ste 400  Plymouth, MN 554475142	Electronic Service	No	SPL_SL_14-413_Initial Notice
Melissa	Driskell	melissa.driskell@telrite.com	Telrite Corporation	4113 Monticello St  Covington, GA 30014	Electronic Service	No	SPL_SL_14-413_Initial Notice
Allison	Dunmire	allison_dunmire@mitel.com	Mitel NetSolutions, Inc.	1146 N Alma School Rd  Mesa, AZ 85201-3000	Electronic Service	No	SPL_SL_14-413_Initial Notice
David L.	Dunning	N/A	Wolverton Telephone Company	PO Box 270  Park River, ND 58270	Paper Service	No	SPL_SL_14-413_Initial Notice
Pete	Eggimann	PEGGIMANN@MN- MESB.ORG	Metropolitan Emergency Services Board	2099 University Ave W Ste 201  St. Paul, MN 551043431	Electronic Service	No	SPL_SL_14-413_Initial Notice
Ron	Elwood	relwood@mnlisap.org	Mid-Minnesota Legal Aid	2324 University Ave Ste 101  Saint Paul, MN 55114	Electronic Service	No	SPL_SL_14-413_Initial Notice
Joan	Engler	joan.m.engler@verizon.com	Verizon Select Services, Inc.	1 Verizon Way VC53S460 Basking Ridge, NJ 07920	Electronic Service	No	SPL_SL_14-413_Initial Notice
Robin	Enkey	robine@budgetprepay.com	Budget PrePay, Inc. dba Budget Phone	1325 Barksdale Blvd Ste 200  Bossier City, LA 71111-4600	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mark	Erickson		City Of Lakefield	301 Main Street PO Box 1023 Lakefield, MN 561500900	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Mark	Erpelding	mark@openaccessconnections.org	Open Access Connections	1821 University Avenue Suite N-184 ST. Paul, MN - Minnesota 55104	Electronic Service	No	SPL_SL_14-413_Initial Notice
Donna	Eul	donnaeul@fedtel.net	Federated Telephone	405 2nd Street East PO Box 156 Chokio, MN 56221	Electronic Service	No	SPL_SL_14-413_Initial Notice
Carol	Fabre	carolf@whiteearth.com	White Earth Reservation Tribal Council	County Road 4, P.O. Box 418  White Earth, MN 56591	Paper Service	No	SPL_SL_14-413_Initial Notice
Benay	Fairbanks	benay.fairbanks@llojibwe.org	Leech Lake Band of Ojibwe	Tribal Development 115 Sixth Street NW, Suite E Cass Lake, MN 56633	Paper Service	No	SPL_SL_14-413_Initial Notice
Christianson	Farms			RR 2  Miltona, MN 56354	Paper Service	No	SPL_SL_14-413_Initial Notice
Kristen	Farole	kfarole@terracominc.com	TerraCom, Inc.	401 E Memorial Rd Ste 400  Oklahoma City, OK 73114	Electronic Service	No	SPL_SL_14-413_Initial Notice
Kelly	Faul	kelly.faul@xo.com	XO Communications Services Inc.	13865 Sunrise Valley Drive  Herndon, VA 20171	Electronic Service	No	SPL_SL_14-413_Initial Notice
Erin	Feikema	info@lismoretele.com	Lismore Coop Telephone Co.	230 S. 3rd AvePO Box 127  Lismore, MN 56155	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jeffrey	Feldman	jfeldman@everestv.com	FTTH Communications L.L.C.	c/o EverestV Two Executive Drive, Ste 635 Fort Lee, NJ 07024	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Steven	Fenker	sfenker1@earthlink.com	Nexus Communications, Inc dba Nexus-TSI	2631 Morse Rd Columbus, OH 43231-5931	Electronic Service	No	SPL_SL_14-413_Initial Notice
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	Yes	SPL_SL_14-413_Initial Notice
Terri	Firestein	tfireccg@myactv.net	FiberNet Monticello	10806 Garrison Hollow Rd Clear Spring, MD 21722	Electronic Service	No	SPL_SL_14-413_Initial Notice
Cynthia	Firstman	cat@airespring.com	Airespring, Inc.	6060 Sepulveda Blvd. Suite 220 Van Nuys, CA 91411	Electronic Service	No	SPL_SL_14-413_Initial Notice
George	Fish	gfish@gvtel.com	Garden Valley Telephone Company	PO Box 259 201 Ross Ave Erskine, MN 56535-0259	Electronic Service	No	SPL_SL_14-413_Initial Notice
John	Fitzgerald	N/A	Western Community Action	1400 South Saratoga Street Marshall, MN 56258-1315	Paper Service	No	SPL_SL_14-413_Initial Notice
Kari	Flanagan	karif@alliance.coop	Alliance Communications Cooperative, Inc.	P.O. Box 349 612 East 3rd Garretson, SD 57030	Electronic Service	No	SPL_SL_14-413_Initial Notice
Shari	Flanders	sflanders@polartel.com	Polar Communications	PO Box 270 Park River, ND 58270	Electronic Service	No	SPL_SL_14-413_Initial Notice
Thomas	Fletcher	tfletcher@aexcom.com	AEX Communications, Inc.	4445 W 77th St Ste 102 Edina, MN 55435-5134	Electronic Service	No	SPL_SL_14-413_Initial Notice
William	Flynn, Esq.		LINDQUIST & VENNUM P.L.L.P.	4200 IDS Center 80 South 8th Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_14-413_Initial Notice



First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Charles	Forst	charles.forst@zayo.com	Zayo Group, LLC	400 Centennial Pkwy Ste 200  Louisville, CO 80027	Electronic Service	No	SPL_SL_14-413_Initial Notice
Susan	Freeman		Network Operator Services, Inc.	P.O. Box 3529  Longview, TX 75606	Paper Service	No	SPL_SL_14-413_Initial Notice
Lisa Jill	Freeman	ljfreeman@bandwidth.com	Bandwidth.com CLEC, LLC	Venture Center III - 5th Floor  900 Main Campus Drive Raleigh, NC 27606	Electronic Service	No	SPL_SL_14-413_Initial Notice
Paul	Fuglie		Verizon Select Services	HQE01H21 600 Hidden Ridge Irving, TX 75038	Paper Service	No	SPL_SL_14-413_Initial Notice
Wayne	Gandy		Encompass Communications, LLC	Suite 286 119 West Tyler Street Longview, TX 75601	Paper Service	No	SPL_SL_14-413_Initial Notice
Bill	Garcia	bill.garcia@windstream.com	Windstream	1800 Old Pecos Trail, Suite J  Santa Fe, NM 87505	Electronic Service	No	SPL_SL_14-413_Initial Notice
Tony	Gebhard	tony@sytekcom.com	Upsala Cooperative Telephone Association	PO Box 366 117 Main St Upsala, MN 56384	Electronic Service	No	SPL_SL_14-413_Initial Notice
Tara	Geshick	tgeshick@boisfortensn.gov	Bois Forte Reservation Tribal Council	5344 Lake Shore Drive, PO Box 16  Nett Lake, MN 55772	Paper Service	No	SPL_SL_14-413_Initial Notice
Linda	Giersdorf	lindag@rmdc.org	Minnesota River Area Agency on Aging, Inc.	PO Box 3323  Mankato, MN 56002-3323	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Edward H.	Griffin		US LEC Communications, Inc.	6801 Morrison Blvd.  Charlotte, NC 28211	Paper Service	No	SPL_SL_14-413_Initial Notice
Marv	Grunig	winutl@windom-mn.com	Windom Municipal Utilities	444 9th Street  Windom, MN 56101	Electronic Service	No	SPL_SL_14-413_Initial Notice
Donna	Gunderson		Johnson Telephone Company	205 1st Avenue NE PO Box 39 Remer, MN 56672	Paper Service	No	SPL_SL_14-413_Initial Notice
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	SPL_SL_14-413_Initial Notice
Jennifer	Haas	regulatory@publicwireless.com	Public Wireless, Inc.	25 East Trimble Road  San Jose, CA 95131	Electronic Service	No	SPL_SL_14-413_Initial Notice
William	Haas	N/A	T-Mobile Central, LLC	601 Pennsylvania Av. NW Ste 800  Washington, DC 20004-2710	Paper Service	No	SPL_SL_14-413_Initial Notice
Steven J.	Haaven	shaaven@minnkota.com	Wild Rice Electric Cooperative, Inc.	PO Box 438 502 North Main Mahnomon, MN 56557	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mary	Haberek	mhaberek@ami.net	AMI Communications, Inc.	300 Cardinal Drive, Suite 280  St. Charles, IL 60175	Electronic Service	No	SPL_SL_14-413_Initial Notice
Brian	Hackett	bhackett@gtl.net	Global Tel*Link Corporation	12021 Sunset Hills Rd Ste 100  Reston, VA 20190	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Robert L.	Hammond, Jr.	N/A	BEVCOMM, Inc.	123 W 7th St  Blue Earth, MN 56013-1309	Paper Service	No	SPL_SL_14-413_Initial Notice
Catherine	Hannan	channan@broadviewtel.com	Broadview Networks, Inc.	800 Westchester Avenue Suite N-501 Rye Brook, NY 10573	Electronic Service	No	SPL_SL_14-413_Initial Notice
Bruce	Hanson	N/A	Starbuck Telephone Company	1700 Technology Dr Ste 100  Willmar, MN 56201	Paper Service	No	SPL_SL_14-413_Initial Notice
Diane	Hanson	dhanson@bvillemn.net	Barnesville Munc. Phone & Electric	PO Box 550 102 Front Street North  Barnesville, MN 56514	Electronic Service	No	SPL_SL_14-413_Initial Notice
Bruce	Hanson	N/A	Clara City Telephone Company	1700 Technology Dr Ste 100  Willmar, MN 56201	Paper Service	No	SPL_SL_14-413_Initial Notice
Bruce	Hanson	N/A	Zumbrota Telephone Company	1700 Technology Dr Ste 100  Willmar, MN 56201	Paper Service	No	SPL_SL_14-413_Initial Notice
JoAnn	Hanson	joann.hanson@centurylink.com	CenturyLink	200 S 5th St Ste 2200  Minneapolis, MN 55402	Electronic Service	No	SPL_SL_14-413_Initial Notice
Bruce	Hanson	bruce@hcinet.net	Sacred Heart Telephone Co.	1700 Technology Dr Ste 100  Willmar, MN 56201	Electronic Service	No	SPL_SL_14-413_Initial Notice
Robert J.	Hauge	lccity@hickorytech.net	Lake Crystal Municipal Utilities	100 E. Robinson Street P.O. Box 86 Lake Crystal, MN 560550086	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Dan	Hayes		Southern Minnesota Municipal Power	500 1st Avenue SW Rochester, MN 559023303	Paper Service	No	SPL_SL_14-413_Initial Notice
Peter	Healy	peter.healy@tdsmetro.com	TDS Metrocom, Inc.	525 Junction Rd Ste 6000 Madison, WI 53717	Electronic Service	No	SPL_SL_14-413_Initial Notice
William	Heaston	bill.heaston@sdncommunications.com	PrairieWave Telecommunications, Inc.	2900 W. 10th Street Sioux Falls, SD 57104	Electronic Service	No	SPL_SL_14-413_Initial Notice
Donna	Heaston	Donna.Heaston@IntegraTelecom.com	Integra Telecom of MN, Inc	6160 Golden Hills Drive Golden Valley, MN 55416	Electronic Service	No	SPL_SL_14-413_Initial Notice
William P.	Heaston	N/A	South Dakota Network, LLC	2900 W. 10th Street Sioux Falls, SD 57104	Paper Service	No	SPL_SL_14-413_Initial Notice
Ted	Heckmann	ted.Heckmann@cinbell.com	Cincinnati Bell Any Distance, Inc.	P.O. Box 2301 221 E. Fourth Street, 1280 Cincinnati, OH 45201-2301	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jerry	Heiberger	jerry.heiberger@itctel.com	Interstate Telecommunications Coop.	P.O. Box 920 Clear Lake, SD 57226	Electronic Service	No	SPL_SL_14-413_Initial Notice
Charles	Heins	cheins@ci.redwood-falls.mn.us	Redwood Falls Public Utilities	PO Box 526 Redwood Falls, MN 562830526	Electronic Service	No	SPL_SL_14-413_Initial Notice
Andy	Hennis	andyh@chriscomco.net	Christensen Communications Company	104 West Main Street Madelia, MN 56062	Electronic Service	No	SPL_SL_14-413_Initial Notice
John	Herron	N/A	City Of Melrose / Melrose Public Util.	225 East First Street N. Melrose, MN 56352	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
James	Hickle	jim.hickle@velocitytelephone.com	Velocity Telephone Inc	4050 Olson Memorial Hwy Ste 100 Golden Valley, MN 55422	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jim	Hiedeman	jimh@uppersiouxcommunity-nsn.gov	Upper Sioux Community	5744 Highway 67 East PO Box 147 Granite Falls, MN 56241	Paper Service	No	SPL_SL_14-413_Initial Notice
Clarence	Hightower	N/A	Community Action Partnership	of Ramsey and Washington Counties 450 North Syndicate Street, Suite 300 St. Paul, MN 55104-4127	Paper Service	No	SPL_SL_14-413_Initial Notice
Mark	Hoffman	N/A	Entelegent Solutions, Inc.	3800 Arco Corp Drive Suite 310 Charlotte, NC 28273	Paper Service	No	SPL_SL_14-413_Initial Notice
Scott	Hoffmann	hoffmann@wins.net	Wisconsin Independent Network, LLC	Box 107 800 Wisconsin Street Eau Claire, WI 547033612	Electronic Service	No	SPL_SL_14-413_Initial Notice
Paul	Hoge	phoge@crosslake.net	Crosslake Communications	35910 County Road 66 PO Box 70 Crosslake, MN 56442	Electronic Service	No	SPL_SL_14-413_Initial Notice
Pamela	Hollick	pamela.hollick@twtelecom.com	TW Telecom	4625 W 86th St Ste 500  Indianapolis, IN 46268-7804	Electronic Service	No	SPL_SL_14-413_Initial Notice
Curtis L	Hopfinger	chopfinger@securustech.net	Evercom Systems, Inc.	14651 Dallas Pkwy Ste 600  Dallas, TX 752546815	Electronic Service	No	SPL_SL_14-413_Initial Notice
Kevin	Hopkins	khopkins@telephoneassociates.com	Telephone Associates, Inc.	329 Grand Ave  Superior, WI 54880	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Rich	Horner		Guaranteed Phone Service	#1 2201 West Broadway Council Bluffs, IA 51501	Paper Service	No	SPL_SL_14-413_Initial Notice
Dan	Hoskins	danh@wikel.com	North Star Electric	P.O. Box 719  Baudette, MN 56623	Electronic Service	No	SPL_SL_14-413_Initial Notice
Gerard	Howe	jhowe@bigrivertelephone.com	Big River Telephone Company	24 South Minnesota Avenue  Cape Girardeau, MO 63703	Electronic Service	No	SPL_SL_14-413_Initial Notice
Dana	Hoyle	cgarrett@broadvox.com	Cypress Communications Operating Company, LLC	1950 N. Stemmons Fwy. Ste. 3031  Dallas, TX 75229	Paper Service	No	SPL_SL_14-413_Initial Notice
William	Hunt	WilliamP.Hunt@dish.com	dishNET Wireline L.L.C.	2460 W 26TH AVE STE 380C  Denver, CO 80211-5349	Electronic Service	No	SPL_SL_14-413_Initial Notice
Karen	Hyde	bademailkaren.hyde@level3.com	Level 3 Communications	200 Technology Drive  Pittsburgh, PA 15219	Paper Service	No	SPL_SL_14-413_Initial Notice
Timothy	Ibisch	cityadmin@heartlandpower.org	City of Tyler	230 N. Tyler Street  Tyler, MN 56178	Electronic Service	No	SPL_SL_14-413_Initial Notice
Charles S.	Isdall		Comdata Telecommunications Services	5301 Maryland Way  Brentwood, TN 37027	Paper Service	No	SPL_SL_14-413_Initial Notice
SUZANNE	JAQUES	kconner@telephoneassociates.com	Telephone Associates	PO BOX 1436 823 Belknap St Ste 201 Superior, WI 54880	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Marja	Johnson	lisa@cicom.net	Coast International Inc.	14303 West 95TH Street  Lenexa, KS 66215	Electronic Service	No	SPL_SL_14-413_Initial Notice
Johnny	Johnson	N/A	Prairie Island Indian Community	5636 Sturgeon Lake Road  Welch, MN 55089	Paper Service	No	SPL_SL_14-413_Initial Notice
Korwin	Johnson	kjohnson@agralite.com	Agralite Electric Cooperative	PO Box 228 320 East Highway 12 Benson, MN 56215	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jane	Johnson		City Of Grove City	P.O. Box 98  Groove City, MN 56243	Paper Service	No	SPL_SL_14-413_Initial Notice
Catherine	Johnson	cjohnson@intercountycc.org	Inter-County Community Council	207 Main Street, PO Box 189  Oklee, MN 56742	Paper Service	No	SPL_SL_14-413_Initial Notice
Richard	Johnson	Rick.Johnson@lawmoss.com	Moss & Barnett	150 S. 5th Street Suite 1200 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_14-413_Initial Notice
Dwayne	Johnson	jtcbusiness@means.net	Johnson Telephone Co.	205 1st Ave NE PO Box 39 Remer, MN 56672-0039	Electronic Service	No	SPL_SL_14-413_Initial Notice
Gary	Johnson	gjohnson@paulbunyan.net	Paul Bunyan Rural Telephone Coop.	P.O. Box 1596 1831 Anne Street NW Bemidji, MN 56601	Electronic Service	No	SPL_SL_14-413_Initial Notice
Steve	Katka	skatka@albanytel.com	Albany Mutual Telephone Association	131 6th St  Albany, MN 56307-8322	Electronic Service	No	SPL_SL_14-413_Initial Notice
Melanie	King	melanie.king@tagmobile.com	Tag Mobile, L.L.C.	1330 Capital Pkwy  Carrollton, TX 75006-3647	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
William	King	billking@youbetnet.net	KTF Telcom	2156 Poplar St  Mora, MN 55051	Electronic Service	No	SPL_SL_14-413_Initial Notice
Linda	Klinkner	lindak@nu-telcom.net	New Ulm Telecom, Inc.	400 Second North PO Box 697 New Ulm, MN 560730697	Electronic Service	No	SPL_SL_14-413_Initial Notice
Rex	Knowles	Rex.Knowles@xo.com	XO Communications Services, Inc.	8851 Sandy Parkway  Sandy, UT 84070	Electronic Service	No	SPL_SL_14-413_Initial Notice
Kenneth	Knuth	k.knuth@fecinc.com	Woodstock Telephone Company	337 Aetna St  Ruthton, MN 56170	Electronic Service	No	SPL_SL_14-413_Initial Notice
Thomas G.	Koehler	TGK@IBEW160.org	Local Union #160, IBEW	2909 Anthony Ln  St Anthony Village, MN 55418-3238	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jim	Koep	utilities@lakefieldmn.com	Lakefield Public Utilities	PO Box 1023  Lakefield, MN 56150	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jeff	Korn	jkorn@storesonline.com	Crexendo Business Solutions, Inc.	1303 N. Research Way  Orem, UT 84097	Electronic Service	No	SPL_SL_14-413_Initial Notice
Patricia	Kraft	patricia.kraft@state.mn.us	Department of Public Safety	445 Minnesota Stree Suite 137 St Paul, Minnesota 55101-5137	Electronic Service	No	SPL_SL_14-413_Initial Notice
Brian	Krambeer	bkrամbeer@tec.coop	Tri-County Electric Cooperative	PO Box 626 31110 Cooperative Way Rushford, MN 55971	Electronic Service	No	SPL_SL_14-413_Initial Notice
John	Kroger	johnkroger@wctatel.com	Winnebago Cooperative Telecom Assn.	704 E. Main Street  Lake Mills, IA 50450	Electronic Service	No	SPL_SL_14-413_Initial Notice



First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Deborah L.	Kuhn	deborah.kuhn@verizon.com	VERIZON	Suite 700 205 North Michigan Avenue Chicago, IL 60601	Electronic Service	No	SPL_SL_14-413_Initial Notice
Pamela	LaBine	nashwaukcityhall@mchsi.com	Nashwauk Public Utilities	301 Central Avenue  Nashwauk, MN 55769	Electronic Service	No	SPL_SL_14-413_Initial Notice
Andrew	Labbe	andrew.labbe@level3.com	Level 3 Communications, LLC	1025 Eldorado Blvd  Broomfield, CO 80021	Electronic Service	No	SPL_SL_14-413_Initial Notice
Renee	Ladd	rladd@arnan.com	ARNAN Services, Inc.	5125 Mill Road  Red Wing, MN 55066	Electronic Service	No	SPL_SL_14-413_Initial Notice
Debra	Larson	debp5@willmar.com	Prairie Five Community Action Council	719 North 7th Street  Montevideo, MN 56265	Paper Service	No	SPL_SL_14-413_Initial Notice
Kevin	Larson	klarson@ctctelcom.com	Consolidated Telephone Company	PO Box 972 1102 Madison St Brainerd, MN 56401	Electronic Service	No	SPL_SL_14-413_Initial Notice
David	Larson	dave.larson@fosston.com	Fosston Municipal Utilities	220 E 1st St. PO Box 239 Fosston, MN 56542	Electronic Service	No	SPL_SL_14-413_Initial Notice
Larry	Laskowski		Network Billing Systems	155 Willowbrook Blvd  Wayne, NJ 7470	Paper Service	No	SPL_SL_14-413_Initial Notice
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	SPL_SL_14-413_Initial Notice
Colleen	Lockett	regulatory@intrado.com	Intrado Communications Inc.	1601 Dry Creek Dr.  Longmont, CO 80503	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Michael	Loeffler	mike.loeffler@nngco.com	Northern Natural Gas Co.	CORP HQ, 714 1111 So. 103rd Street Omaha, NE 681241000	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mary	Lohnes	mary_lohnes@mml.net	Midcontinent Communications	3901 N Louise Ave  Sioux Falls, SD 57107	Electronic Service	No	SPL_SL_14-413_Initial Notice
Greg	Lohrenz	gregl@aitech.net	Advanced Integrated Technologies	9855 W 78th St Ste 300  Eden Prairie, MN 55344	Electronic Service	No	SPL_SL_14-413_Initial Notice
Bill	Loonan		Lismore Coop. Telephone Co.	PO Box 127  Lismore, MN 56155	Paper Service	No	SPL_SL_14-413_Initial Notice
Kathy	Lund	N/A	New Ulm Telecom, Inc. d/b/a NU-Telecom	27 North Minnesota P.O. Box 697 New Ulm, MN 56073	Paper Service	No	SPL_SL_14-413_Initial Notice
Kurt	Maass	N/A	TTM Operating Corporation, Inc.	Suite 210 146 N. Canal Street Seattle, WA 98103	Paper Service	No	SPL_SL_14-413_Initial Notice
James	MacKenzie	info@wimactel.com	WiMacTel, Inc.	13515 I Circle  Omaha, NE 68137	Electronic Service	No	SPL_SL_14-413_Initial Notice
Danna	MacKenzie	danna.mackenzie@state.mn.us	MN Office of Broadband Development	332 Minnesota Street, #E200 1st National Bank Building St. Paul, MN 55101	Electronic Service	No	SPL_SL_14-413_Initial Notice
Joan	Macik	joanm@heartlandcaa.org	Heartland Community Action Agency	200 SW 4th St, PO Box 1359  Willmar, MN 56207	Paper Service	No	SPL_SL_14-413_Initial Notice
Lee	Maier	lee@runestone.net	Runestone Telephone Association	PO Box 336 100 Runestone Dr Hoffman, MN 56339-0336	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
General	Manager		Lake Country Power	Grand Rapids Service Center 2810 Elida Drive Grand Rapids, MN 55744	Paper Service	No	SPL_SL_14-413_Initial Notice
James	Mancuso	jmanuso@clearworld.net	Clear World Communications	3501 South Harbor Blvd. Suite 200 Santa Ana, CA 92704	Electronic Service	No	SPL_SL_14-413_Initial Notice
Thomas	Margavio	tm5886@att.com	BellSouth Long Distance, Inc.	AT&T Midtown Center 675 W Peachtree Ste 17E21 Atlanta, GA 30375	Electronic Service	No	SPL_SL_14-413_Initial Notice
Tom	Maroney	tmaroney@rrv.net	Halstad Telephone Company	PO Box 55 345 2nd Ave W Halstad, MN 56548-0055	Electronic Service	No	SPL_SL_14-413_Initial Notice
Katherine Barker	Marshall	N/A	US Signal Company, L.L.C.	201 Ionia Avenue SW  Grand Rapids, MI 49503	Paper Service	No	SPL_SL_14-413_Initial Notice
Paul	Masters	pmasters@ernestgroup.com	Ernest Communications, Inc.	Suite 150 5275 Triangle Parkway Norcross, GA 30092	Electronic Service	No	SPL_SL_14-413_Initial Notice
Laura	Matosian	regulatory@comtech21.com	COMTECH 21, LLC	One Barnes Park South  Wallingford, CT 6492	Electronic Service	No	SPL_SL_14-413_Initial Notice
Joe	Mattison	jmattison@telephoneassociates.com	Telephone Associates, Inc.	329 Grand Avenue  Superior, WI 54880	Electronic Service	No	SPL_SL_14-413_Initial Notice
Anthony	Mayer		WETEC LLC Db a Unitel Communications	105 Third Street West P.O. Box 151 Park Rapids, MN 56470	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Robert W.	McCausland	robert.mccausland@h3net.com	Hypercube Telecom, LLC	3200 W Pleasant Run Rd Ste 300  Lancaster, TX 75146	Electronic Service	No	SPL_SL_14-413_Initial Notice
Francie	McComb		Talk America, Inc.	2134 W. Laburnum Ave.  Richmond, VA 232274342	Paper Service	No	SPL_SL_14-413_Initial Notice
Pat	McDonough	N/A	i-Wireless	1 Levee Way Ste 3104  Newport, KY 41071	Paper Service	No	SPL_SL_14-413_Initial Notice
Patrick	McFarland	patrick.mcfarland@accap.org	Anoka County Community Action Program	1201 - 89th Avenue NE, Suite 345  Blaine, MN 55434	Paper Service	No	SPL_SL_14-413_Initial Notice
James	McKnight	JMCKNIGHT@mediacomc.com	MCC Telephony of Minnesota, LLC dba Mediacom	One Mediacom Way  Mediacom, NY 10918	Electronic Service	No	SPL_SL_14-413_Initial Notice
David	Meyer	dave@glencoelightandpower.com	Glencoe Light and Power Commission	305 11th Street East  Glencoe, MN 55336	Electronic Service	No	SPL_SL_14-413_Initial Notice
Johnny	Michael	jbekuto@yahoo.com	Worldview Video Relay Service d/b/a Worldview VRS	3832 Dunbar Ct  Brooklyn Park, MN 55443-1975	Electronic Service	No	SPL_SL_14-413_Initial Notice
Shelby	Michlin		Network Billing Systems, LLC	155 Willowbrook Blvd.  Wayne, NJ 7470	Paper Service	No	SPL_SL_14-413_Initial Notice
Robert A	Millar	robert.millar@crowncastle.com	NextG Networks of Illinois, Inc.	c/o CROWN CASTLE 2000 Corporate Dr Canonsburg, PA 15317	Electronic Service	No	SPL_SL_14-413_Initial Notice
Angie	Miller	N/A	Community Action Duluth	2424 W. 5th St Suite 102 Duluth, MN 55806	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Jackie	Mines	Jackie.Mines@state.mn.us	Department of Public Safety	x x 55102	Electronic Service	No	SPL_SL_14-413_Initial Notice
Keith	Modglin	keith.modglin@millelacsband.com	Mille Lacs Band of Ojibwe	43408 Oodena Dr  Onamia, MN 56359-2236	Electronic Service	No	SPL_SL_14-413_Initial Notice
Deb	Mohelski	debmohelski@mlwl.us	Moose Lake Water And Light Commission	P.O. Box 418 401 Douglas Ave Moose Lake, MN 55767	Electronic Service	No	SPL_SL_14-413_Initial Notice
Michael	Monsrud	N/A	Bagley Public Utilities	18 Main Ave. S. PO Box M Bagley, MN 56621	Paper Service	No	SPL_SL_14-413_Initial Notice
Richard	Monto	rmonto@inteliquent.com	Neutral Tandem-Minnesota, LLC	550 West Adams Street, Suite 900  Chicago, IL 60661	Electronic Service	No	SPL_SL_14-413_Initial Notice
Michael R.	Moore	michael.moore@chartercom.com	Charter Communications, Inc.	12405 Powerscourt Drive  St. Louis, MO 63131	Electronic Service	No	SPL_SL_14-413_Initial Notice
Monty	Morrow	montymorrow@nu-telecom.net	NU Telecom	235 Franklin St PO Box 279 Hutchinson, MN 55350	Electronic Service	No	SPL_SL_14-413_Initial Notice
Katherine	Mudge	katherine.mudge@megapath.com	MegaPath Corporation	1835-B Kramer Ln Ste 100  Austin, TX 78758	Electronic Service	No	SPL_SL_14-413_Initial Notice
Julie	Musselman Oost	regulatory@airustel.com	Airus, Inc.	840 S Canal St FL 7  Chicago, IL 60607-4519	Electronic Service	No	SPL_SL_14-413_Initial Notice
Ralph D.	Mykkanen	BADEMAIL-ralphm@mlcmmn.com	Mille Lacs Electric Cooperative	P.O. Box 230  Aitkin, MN 56431	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Steve	Nagle	steven@wcmca.org	West Central Minnesota Communities Action	411 Industrial Park Blvd.  Elbow Lake, MN 56531-4213	Paper Service	No	SPL_SL_14-413_Initial Notice
Dale	Narlock	dnarlock@citytrf.net	City of Thief River Falls	Power & Light Dept. Box 528 Thief River Falls, MN 56701	Electronic Service	No	SPL_SL_14-413_Initial Notice
Steve	Nasby	snasby@windom-mn.com	City of Windom	444 9th St PO Box 38 Windom, MN 56101-0038	Electronic Service	No	SPL_SL_14-413_Initial Notice
Daniel C.	Nelson	dcndtc@bevcomm.net	Dunnell Telephone Company, Inc.	PO Box 42 110 N Seeley Ave Dunnell, MN 56127	Electronic Service	No	SPL_SL_14-413_Initial Notice
Michael	Nelson	Michael_Nelson@cable.comcast.com	Comcast Corp.	183 Inverness Drive West  Englewood, CO 80112	Electronic Service	No	SPL_SL_14-413_Initial Notice
David	Nelson	davidnelson@kpcoop.com	Kandiyohi Power Cooperative	P.O. Box 40 8605 47th Street NE Spicer, MN 562880040	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mike	Nelson	N/A	Comcast Phone of Minnesota, Inc.	183 Inverness Drive West  Englewood, CO 80112	Paper Service	No	SPL_SL_14-413_Initial Notice
DeeAnne	Newville	dnewville@renville-sibley.coop	Renville-Sibley Cooperative Power Assn	103 Oak Street Box 68 Danube, MN 56230	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mark	Nibaur	markn@austinutilities.com	Austin Utilities	400 Fourth Street NE  Austin, MN 55912	Electronic Service	No	SPL_SL_14-413_Initial Notice
Randy	Nordin	ranordin@nwcaa.org	Norwest Comm Action Agency	312 North Main Street PO Box 67 Badger, MN 56714	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Keith	Nussbaum	keith@preferredlongdistance.com	Preferred Long Distance, Inc.	Suite 350 16830 Ventura Blvd. Encino, CA 91436	Electronic Service	No	SPL_SL_14-413_Initial Notice
Matt	O'Flaherty	oflaherty.matt@gmail.com	SelecTel, Inc.	1825 N Bell St  Freemont, NE 68025	Electronic Service	No	SPL_SL_14-413_Initial Notice
Joseph	O'Hara	N/A	Zone Telecom, LLC	3130 Pleasant Run  Springfield, IL 62711	Paper Service	No	SPL_SL_14-413_Initial Notice
Financial	Officer		Emily Cooperative Telephone Company	P.O. Box 100  Emily, MN 564470100	Paper Service	No	SPL_SL_14-413_Initial Notice
Robert	Olson	rolson@emily.net	Emily Cooperative Telephone Company	PO Box 100  Emily, MN 564470100	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jeffrey J.	Olson	jeffolson@rrt.net	Red River Rural Telephone Association	506 Broadway PO Box 136 Abercrombie, ND 58001-0136	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jennifer	Ong	jennifer.ong@timestelecomusa.com	Yestel USA, Inc.	4343 E Lowell St c/o TIMES TELECOM USA  Ontario, CA 91761-2222	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mike	Orcutt	mgorcutt@nttservices.com	Nebraska Technology & Telecommunications, In.	2308 S. 156 Circle  Omaha, NE 68130	Electronic Service	No	SPL_SL_14-413_Initial Notice
Eric James	Osterberg	staff@soundchoicecommunications.com	Sound Choice Communications, LLC	PO Box 17010  Minneapolis, MN 55417	Electronic Service	No	SPL_SL_14-413_Initial Notice
Craig	Otterness	otter@springgrove.coop	Spring Grove Communications	PO Box 516 166 W Main St Spring Grove, MN 55974	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Donna	Palumbo	donna.palumbo@ipc.com	IPC Network Services, Inc.	3 2nd St 15th Floor Jersey City, NJ 07311	Electronic Service	No	SPL_SL_14-413_Initial Notice
Wayne	Paplow		City Of Dundee	111 N. Main Street  Dundee, MN 56131	Paper Service	No	SPL_SL_14-413_Initial Notice
Kimm	Partridge	kimm.partridge@ucn.net	UCN, Inc.	Suite 500 7730 S. Union Park Avenue Midvale, UT 84047	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jean	Pauk	jean.pauk@tdstelecom.com	TDS Telecom	525 Junction Road  Madison, WI 53717	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mark	Pavol	regulatory@ymaxcorp.com	YMAX Communications Corp.	PO BOX 6785  West Palm Beach, FL 33404-6785	Electronic Service	No	SPL_SL_14-413_Initial Notice
Gloria	Pederson	gpederson@bevcomm.com	Cannon Valley Telephone, Inc.	123 West Seventh Street  Blue Earth, MN 56013	Electronic Service	No	SPL_SL_14-413_Initial Notice
Joseph	Pederson	joep@lakesandprairies.net	Lakes & Prairies Community Action Partnership, Inc.	715 11th Street N. #402 Moorhead, MN 565602088	Paper Service	No	SPL_SL_14-413_Initial Notice
Rochelle	Pervisky	RPervisky@exchange.hbci.com	Hiawatha Broadband	58 Johnson Street  Winona, MN 55987	Electronic Service	No	SPL_SL_14-413_Initial Notice
Diane	Peters	diane.peters@level3.com	Level 3 Communications, LLC	225 Kenneth Dr.  Rochester, NY 14623-4277	Electronic Service	No	SPL_SL_14-413_Initial Notice
Linda	Peterson	N/A	C-I Communications, Inc.	1102 Madison St  Brainerd, MN 56401	Paper Service	No	SPL_SL_14-413_Initial Notice



First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Mark E.	Petsche		Wells Public Utilities	P.O. Box 96 101 1st Street S.E. Wells, MN 56097	Paper Service	No	SPL_SL_14-413_Initial Notice
Jack D.	Phillips	jack.phillips@ftr.com	Frontier Communications Of MN, Inc.	14450 Burnhaven Drive  Burnsville, MN 55306	Electronic Service	No	SPL_SL_14-413_Initial Notice
William	Phillips	wphillips@aarp.org	AARP	30 E. 7th St Suite 1200  St. Paul, MN 55101	Electronic Service	No	SPL_SL_14-413_Initial Notice
Leah	Pigatti	lpigatti@mahube.org	Mahube-Otwa Community Action Parenership	1125 West River Road, P.O. Box 747  Detroit Lakes, MN 56502	Paper Service	No	SPL_SL_14-413_Initial Notice
Jennifer	Podolske		Wright Hennepin Co-Op Electric Assoc.	P.O. Box 330 6800 Electric Drive Rockford, MN 55373	Paper Service	No	SPL_SL_14-413_Initial Notice
THOMAS	QUINN	TOM.QUINN@SUNGARD. COM	SunGard NetWork Solutions Inc.	680 E SWEDESFORD RD  WAYNE, PA 19087	Electronic Service	No	SPL_SL_14-413_Initial Notice
Kris	Rademacher	krisr@farmerstel.net	Farmers Mutual Telephone Co.	301 2nd St S  Bellingham, MN 562120369	Electronic Service	No	SPL_SL_14-413_Initial Notice
Lori	Raiber	lori.raiber@tricap.org	Tri-County Action Programs (Tri-CAP)	1210 23rd Avenue South PO Box 683 Waite Park, Mn 56387	Paper Service	No	SPL_SL_14-413_Initial Notice
Tolaver	Rapp	Tolaver.Rapp@cliffsnr.com	Cliffs Natural Resources	200 Public Square Suite 3400 Cleveland, OH 441142318	Electronic Service	No	SPL_SL_14-413_Initial Notice
Terry	Ray	tray@extenetsystems.com	ExteNet Systems, Inc.	Suite 340 3030 Warrenville Road Lisle, IL 60532	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Jessica	Renneker	jrenneker@nos.com	NOS Communications, Inc.	250 Pilot Rd Ste 300  Las Vegas, NV 89119-3514	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jeff	Reynolds	bademailjeff@telequality.com	TeleQuality Communications, Inc.	Suite 207 16601 Blanco Road San Antonio, TX 78232	Paper Service	No	SPL_SL_14-413_Initial Notice
Robert	Riddell	telenutz@mlecwb.net	Northern Telephone Company	13448 Co. Rd. 25  Wawina, MN 557369721	Electronic Service	No	SPL_SL_14-413_Initial Notice
Robert	Riddell		Wilderness Valley Telephone Co. Inc.	13448 Co. Rd. 25  Wawina, MN 557369721	Paper Service	No	SPL_SL_14-413_Initial Notice
Robert S	Rife	grodham@diversifiedconsulting.net	Broadband Dynamics, LLC	8757 E Via De Comercio FL 1  Scottsdale, AZ 85258-3359	Electronic Service	No	SPL_SL_14-413_Initial Notice
Judith A	Riley	jriley@telecompliance.net	Mosaic Networx LLC dba MX NETWORK	PO Box 720128  Oklahoma City, OK 73172-0128	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jennifer	Rise	jrise@702com.net	VAL-ED Joint Venture LLP	702 Main Avenue  Moorhead, MN 56560	Electronic Service	No	SPL_SL_14-413_Initial Notice
Mark	Roach	mark.roach@ctctelcom.net	Consolidated Telephone Company	1102 Madison Street PO Box 972 Brainerd, MN 56401	Electronic Service	No	SPL_SL_14-413_Initial Notice
Vernell	Roberts		Wadena Light And Water	104 Jefferson Street North  Wadena, MN 56402	Paper Service	No	SPL_SL_14-413_Initial Notice
Vernell	Roberts	vroberts@lakesnet.net	Detroit Lakes Public Utilities	1025 Roosevelt Ave  Detroit Lakes, MN 56501	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Natalia	Rodrigues	nrodriques@wcs.com	Wholesale Carrier Services, Inc.	5471 N. University Drive  Coral Springs, FL 33067	Electronic Service	No	SPL_SL_14-413_Initial Notice
Carey	Roesel	croesel@tmnc.com	Technologies Management, Inc.	PO Drawer 200  Winter Park, FL 327900200	Electronic Service	No	SPL_SL_14-413_Initial Notice
Clinton M.	Rogers	clintonmrogers@hotmail.com	Janesville Utilities	101 N. Mott, Box 0  Janesville, MN 560480617	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jeffrey	Roiland	jeff.s.roiland@gmail.com	Lake Communications	409 17th Ave  Two Harbors, Mn 55616	Electronic Service	No	SPL_SL_14-413_Initial Notice
Brad	Roos	bradr@marshallutilities.com	Marshall Municipal Utilities	113 4th Street South  Marshall, MN 56258	Electronic Service	No	SPL_SL_14-413_Initial Notice
Steve	Roussos	N/A	Convergia, Inc.	237 Hymns Blvd  Pointe Claire, Quebec H9R 5C7  CANADA	Paper Service	No	SPL_SL_14-413_Initial Notice
Marc	Rozar		Custom Network Solutions, Inc.	Suite 102 210 E Route 4 Paramus, NJ 76525103	Paper Service	No	SPL_SL_14-413_Initial Notice
Michelle	Salisbury	michelle.salisbury@crowncastle.com	NewPath Networks, LLC	c/o CROWN CASTLE 2000 Corporate Dr Canonsburg, PA 15317	Electronic Service	No	SPL_SL_14-413_Initial Notice
Phillip	Sam	phillip.sam@millelacsband.com	Mille Lacs Band of Ojibwe	43408 Oodena Drive  Onamia, MN 56359	Paper Service	No	SPL_SL_14-413_Initial Notice
Catherine	Sampson	csampson@ardc.org	Arrowhead Area Agency on Aging	221 West 1st Street  Duluth, MN 55802	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Curtis A	Sampson	bademaildspeiser@hcctel.net	O.U. Connection, Inc.	PO Box 697 27 N Minnesota St New Ulm, MN 56073	Paper Service	No	SPL_SL_14-413_Initial Notice
Christopher	Sandberg	cksandberg@locklaw.com	LOCKRIDGE GRINDAL NAUEN PLLP	100 Washington Ave S Ste 2200  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_14-413_Initial Notice
Betty	Sanders	betty.sanders@chartercom.com	Charter Fiberlink, LLC	12405 Powerscourt Drive  St. Louis, MO 63131	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jill	Sandford	jill.sandford@zayo.com	Zayo Group, LLC	360 Hamilton Avenue  White Plains, NY 10601	Electronic Service	No	SPL_SL_14-413_Initial Notice
Cheryl	Scapanski	cscapanski@bctelco.net	Benton Cooperative Telephone Company	2220 125th St NW  Rice, MN 56367	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jeff	Schill	jeff.schill@netins.com	Iowa Network Services Inc	4201 Corporate Drive  West Des Moines, Iowa 50266	Electronic Service	No	SPL_SL_14-413_Initial Notice
Travis	Schmidt	tschmidt@mpsutility.com	Moorhead Public Service	500 Center Ave. PO Box 779 Moorhead, MN 56561	Electronic Service	No	SPL_SL_14-413_Initial Notice
Bruce	Schoonover	bademailbruce.schoonover@knology.com	Knology of the Plains, Inc.	1241 OG Skinner Dr  West Point, GA 31833-1789	Paper Service	No	SPL_SL_14-413_Initial Notice
David	Schornack	N/A	Felton Telephone Company	150 Second Street SW  Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
David	Schornack	N/A	Loretel Systems, Inc.	150 Second Street SW  Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Schornack	N/A	The Peoples Telephone Company of Bigfork	150 2nd St. SW Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
David	Schornack	N/A	Hector Communications Corporation (H)	(on behalf of Arrowhead Communications Corp) 27 North Minnesota St New Ulm, MN 56073	Paper Service	No	SPL_SL_14-413_Initial Notice
David	Schornack	N/A	Twin Valley-Ulen Telephone Company	150 Second Street SW Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
David	Schornack	N/A	Callaway Telephone Company	150 Second Street SW Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
David	Schornack	N/A	East Otter Tail Telephone Company	150 2nd Street SW Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
David	Schornack	N/A	Arrowhead Communications Corporation	150 Second Street SW Perham, MN 56573	Paper Service	No	SPL_SL_14-413_Initial Notice
David	Schornack	david.schornack@arvig.com	Tekstar Communications, Inc.	150 2nd St SW Perham, MN 56573	Electronic Service	No	SPL_SL_14-413_Initial Notice
John	Schultz	jschultz@u-rekabroadband.com	Minnesota Fiber Exchange LLC	176 Rutherford Rd Stillwater, MN 55082	Electronic Service	No	SPL_SL_14-413_Initial Notice
Kevin	Seamans	KEVIN.SEAMANS@BESTBUY.COM	BBY Networks, Inc	7601 Penn Ave. Richfield, MN 55423	Electronic Service	No	SPL_SL_14-413_Initial Notice
Marcia	Seibert Volz	N/A	City of Fairfax	18 1st St. SE PO Box K Fairfax, MN 55332	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
James	Seliga	N/A	FTTH Communications L.L.C.	2930 146th St Ste 105  Rosemount, MN 55068	Paper Service	No	SPL_SL_14-413_Initial Notice
Mark C.	Sexton	msexton@wccaweb.com	Wright County Community Action	130 West Division Street PO Box 787 Maple Lake, MN 55358	Paper Service	No	SPL_SL_14-413_Initial Notice
Omesh	Sharma	Omesh.sharma@clearfly.net	Greenfly Networks, Inc. dba Clearly Communications	PO BOX 77706  San Francisco, CA 94107	Electronic Service	No	SPL_SL_14-413_Initial Notice
Bonnie	Simon	bsimon@lonsdaletel.com	Lonsdale Telephone Company	PO Box 358 126 South Main Street Lonsdale, MN 55046-0358	Electronic Service	No	SPL_SL_14-413_Initial Notice
Dawn	Simonson	dawn@tcaging.org	Metropolitan Area Agency on Aging	2365 North McKnight Rd., Ste 3  St. Paul, MN 55109-2264	Paper Service	No	SPL_SL_14-413_Initial Notice
David J.	Smat	regulatory@ingts.com	iNetworks Group, Inc.	Suite 2510 125 S. Wacker Drive Chicago, IL 60606	Electronic Service	No	SPL_SL_14-413_Initial Notice
Don	Snyders	don@alliancecom.net	Alliance Communications Cooperative, Inc.	PO Box 349 612 Third St Garretson, SD 57030	Electronic Service	No	SPL_SL_14-413_Initial Notice
Compliance	Specialist	Compliance@velocity.org	Velocity The Greatest Phone Company Ever, Inc.	7130 Spring Meadows W Dr  Holland, OH 43528	Electronic Service	No	SPL_SL_14-413_Initial Notice
William J.	Spitzer	mayor@stcharlesmn.org	City of St. Charles	830 Whitewater Avenue  St. Charles, MN 55972	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Sabrina	Spruill	bademail_Sabrina@mobile.com	Mobilitie, LLC	660 Newport Center Drive, Suite 200  Newport Beach, CA 92660	Paper Service	No	SPL_SL_14-413_Initial Notice
Joseph	Steffel	joseph.steffel@ci.buffalo.mn.us	City of Buffalo Municipal Electric	212 Central Avenue  Buffalo, MN 55313	Electronic Service	No	SPL_SL_14-413_Initial Notice
Neal	Steffl	nsteffl@smoc.us	Southwestern MN Opportunity Council, Inc.	1106 - 3rd Avenue, P.O. Box 787  Worthington,, MN 56187	Electronic Service	No	SPL_SL_14-413_Initial Notice
Lance J.M.	Steinhart	info@telecomcounsel.com	Attorney at Law	1725 Windward Concourse Ste 150  Alpharetta, GA 30005	Electronic Service	No	SPL_SL_14-413_Initial Notice
Kate	Stem	BADEMAILkate.stem@accesspointinc.com	Access Point, Inc.	1100 Crescent Green, Ste. 109  Cary, NC 27518	Paper Service	No	SPL_SL_14-413_Initial Notice
Wayne D.	Stenberg	wayne.stenberg@semcac.org	Semcac	204 South Elm PO Box 549 Rushford, MN 559710549	Paper Service	No	SPL_SL_14-413_Initial Notice
Rick	Stern	rstern@nitelusa.com	Network Innovations, Inc. d/b/a Nitel	1101 W Lake St.  Chicago, IL 60657	Electronic Service	No	SPL_SL_14-413_Initial Notice
Tim	Stoner	timothy.stoner@belw.org	Blue Earth Light & Water Dept.	125 East Seventh Street  Blue Earth, MN 56013	Electronic Service	No	SPL_SL_14-413_Initial Notice
Paul	Stowman	paul@rothsay.us	Rothsay Telephone Company	PO Box 158 137 1st St NW Rothsay, MN 56579-0158	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Wayne	Stowman	wstowman@rtelnet.net	Rothsay Telephone Company	137 1st St NW  Rothsay, MN 56579	Electronic Service	No	SPL_SL_14-413_Initial Notice
Ronald	Streyle	ronstreyle@juno.com	Rochester Telecom Systems, Inc.	PO Box 235  Rochester, MN 559030235	Electronic Service	No	SPL_SL_14-413_Initial Notice
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_14-413_Initial Notice
Keith	Stubbe	tunesrus@iw.net	Southwest Minnesota Broadband Services	PO BOX 1006  Lakefield, MN 56150	Electronic Service	No	SPL_SL_14-413_Initial Notice
Cynthia	Sweet	csweet@acecomgroup.com	Ace Telephone Association	207 East Cedar P.O. Box 360  Houston, MN 559430360	Electronic Service	No	SPL_SL_14-413_Initial Notice
Guy	Swenson	gswenson@bvillemn.net	Barnesville Municipal Telephone Company	PO Box 550 101 Front St S Barnesville, MN 56514	Electronic Service	No	SPL_SL_14-413_Initial Notice
Harlan	Tardy	harlan.tardy@aeoa.org	Arrowhead Economic Opportunity Agency, Inc.	702 3rd Ave S  Virginia, MN 55792	Electronic Service	No	SPL_SL_14-413_Initial Notice
Harlan	Tardy	N/A	KOOTASCA Community Action	201 NW 4th St #130  Grand Rapids, MN 55744	Paper Service	No	SPL_SL_14-413_Initial Notice
Mike	Theisen		Northern Minnesota Utilities	910 Cloquet Ave.  Cloquet, MN 55720	Paper Service	No	SPL_SL_14-413_Initial Notice
Mark	Thoma	markthoma@wctatel.com	Winnebago Coop. Telecom Assoc.	704 E Main St  Lake Mills, IA 50450	Electronic Service	No	SPL_SL_14-413_Initial Notice



First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Carl	Thompson		PromiseVision Technology, Inc.	#212 1050 E 2nd Edmond, OK 73034	Paper Service	No	SPL_SL_14-413_Initial Notice
Michael	Thorsteinson	mike.thorsteinson@threeriverscap.org	Three Rivers Community Action	1414 North Star Drive  Zumbrota, MN 55992	Paper Service	No	SPL_SL_14-413_Initial Notice
Lorren	Tingesdal	lorren@mabeltel.coop	Harmony Telephone Company	PO Box 368 214 N Main St Mabel, MN 55954-0368	Electronic Service	No	SPL_SL_14-413_Initial Notice
Beth	Tollefson	btollefson@kmtel.com	Kasson & Mantorville	18 2nd Avenue NW  Kasson, MN 55944	Electronic Service	No	SPL_SL_14-413_Initial Notice
Daniel	Tonder	d.tonder@mnpower.com	Minnesota Power	PO Box 60  Little Falls, MN 56345	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jason	Topp	jason.topp@centurylink.com	CenturyLink	200 S 5th St Ste 2200  Minneapolis, MN 55402	Electronic Service	No	SPL_SL_14-413_Initial Notice
Melissa	Tschida	mtschida@sytekcom.com	Upsala Cooperative Telephone	PO Box 277  Upsala, MN 56384	Electronic Service	No	SPL_SL_14-413_Initial Notice
Brad	VanLeur	bvanleur@orbitcominc.net	OrbitCom, Inc.	1701 North Louise Avenue  Sioux Falls, SD 57107	Electronic Service	No	SPL_SL_14-413_Initial Notice
William	VanderSluis	N/A	CP Telecom	209 W 1st St  Duluth, MN 55802	Paper Service	No	SPL_SL_14-413_Initial Notice
William	VanderSluis	N/A	Mankato Citizens Telephone Company	221 E. Hickory Street PO Box 3248 Mankato, MN 56002-3248	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
William	VanderSluis	N/A	Heartland Telecommunications Company of Iowa	221 East Hickory Street SW  Mankato, MN 56001	Paper Service	No	SPL_SL_14-413_Initial Notice
William	VanderSluis	regulatory@hickorytech.com	Enventis Telecom, Inc.	221 E Hickory St  Mankato, MN 56001-3610	Electronic Service	No	SPL_SL_14-413_Initial Notice
William	VanderSluis	N/A	Crystal Communications, Inc.	221 E. Hickory Street  Mankato, MN 56001	Paper Service	No	SPL_SL_14-413_Initial Notice
Charlie	Vig	N/A	Shakopee Mdewakanton Sioux Community	2330 Sioux Trail  Prior Lake, MN 55372	Paper Service	No	SPL_SL_14-413_Initial Notice
Patricia	Voorhees	regulatory@matrixbt.com	Touch 1 Communications, Inc.	7171 Forest Lane suite 700  Dallas, TX 75230	Electronic Service	No	SPL_SL_14-413_Initial Notice
Lori	Vrolson	lori@cmcoa.org	Central Minnesota Council on Aging	1301 W St. Germain St., Suite 101  St. Cloud, MN 56301-3456	Paper Service	No	SPL_SL_14-413_Initial Notice
Dana	Wahlberg	dana.wahlberg@state.mn.us	Department of Public Safety	Town Square Ste 137 444 Cedar St St. Paul, MN 551015126	Electronic Service	No	SPL_SL_14-413_Initial Notice
Darle	Waldner	darla@nwrdc.org	Land of the Dancing Sky AAA	109 South Minnesota Street  Warren, MN 56762-1428	Paper Service	No	SPL_SL_14-413_Initial Notice
Anthony T.	Ward	atward@grpuc.org	Public Utilities Commission	P O Box 658 500 SE 4th Street Grand Rapids, MN 55744	Electronic Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Karl	Wardin	ww3587@att.com	AT&T Corp	225 W Randolph St, 27C350  Chicago, IL 60606	Electronic Service	No	SPL_SL_14-413_Initial Notice
David	Wareikis	dwareikis@bluejaywireless.com	Blue Jay Wireless, LLC	5010 Addison Circle  Addison, TX 75001	Electronic Service	No	SPL_SL_14-413_Initial Notice
Jerry	Watts	jerry.watts@corp.earthlink.com	EarthLink	Suite 106 3000 Columbia House Blvd. Vancouver, WA 98661	Electronic Service	No	SPL_SL_14-413_Initial Notice
Avi	Weisman		Gold Line Telemanagement Inc.	180 West Beaver Creek Rd  Richmond Hill, ON L4B 1B4  CANADA	Paper Service	No	SPL_SL_14-413_Initial Notice
Kent	Westphal	kwestphal@mypremieronline.com	Northern Iowa Telephone Company	PO Box 200 339 1st Ave E Sioux Center, IA 51250	Electronic Service	No	SPL_SL_14-413_Initial Notice
Bruce	White	bademaillscovill@telecomsys.com	Telecommunication Systems	275 West Street  Annapolis, MD 21401	Paper Service	No	SPL_SL_14-413_Initial Notice
Mary	Whiting	mwhiting@corp.earthlink.com	EarthLink Business, LLC	2610 Horizon Dr Ste B  Grand Rapids, MI 49546	Electronic Service	No	SPL_SL_14-413_Initial Notice
Tom	Wierimaa	N/A	Mosaic Networx LLC	454 Las Gallinas Ave Ste 145  San Rafael, CA 94903	Paper Service	No	SPL_SL_14-413_Initial Notice
Ray H.	Wigern		Wells Public Utilities	101 First Street SE PO Box 96 Wells, MN 56097	Paper Service	No	SPL_SL_14-413_Initial Notice

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Curtiss	Wikstrom	curtw@wiktel.com	Wikstrom Telephone Company	PO Box 217 212 South Main St Karlstad, MN 56732-0217	Electronic Service	No	SPL_SL_14-413_Initial Notice
Sandra	Williams	sandrawilliams@netoneint.com	Net One International, Inc.	6933 University Blvd.  Winter Park, FL 32792-6707	Electronic Service	No	SPL_SL_14-413_Initial Notice
Lyle R.	Williamson	Lyle.Williamson@Verizon.com	Verizon Wireless	8350 E Crescent Pkwy Ste 200  Greenwood Village, CO 80111	Electronic Service	No	SPL_SL_14-413_Initial Notice
Karrie	Willis	kwillis@popp.com	POPP.com, Inc.	620 Mendelssohn Ave N  Golden Valley, MN 55427	Electronic Service	No	SPL_SL_14-413_Initial Notice
David	Wolf	dwolf@gctel.net	Gardonville Cooperative Telephone Association	800 Central Ave N  Brandon, MN 56315	Electronic Service	No	SPL_SL_14-413_Initial Notice
Cliff	Woodbury	cliff.woodbury@ies911.com	Independent Emergency Services LLC	235 Franklin St SW  Hutchinson, MN 55350-0279	Electronic Service	No	SPL_SL_14-413_Initial Notice
John T.	Woodwick	john@mnvac.org	Minnesota Valley Action Council	706 North Victory Drive  Mankato, MN 56001	Paper Service	No	SPL_SL_14-413_Initial Notice
Lezlie	Young	lezlie.p.young@windstream.com	Talk America Inc.	4001 N. Rodney Parham Rd.  Little Rock, AR 72212	Electronic Service	No	SPL_SL_14-413_Initial Notice
Kathy	Zacher	citykaz@acegroup.cc	City Of Rushford	101 N. Mill St. PO Box 430 Rushford, MN 55971	Electronic Service	No	SPL_SL_14-413_Initial Notice
Richard	Zierdt	N/A	Community Action Partnership	of Suburban Hennepin 8800 Highway 7, Suite 401 St. Louis Park, MN 55426	Paper Service	No	SPL_SL_14-413_Initial Notice

**STATE OF MINNESOTA  
BEFORE THE PUBLIC UTILITIES COMMISSION**

<b>Beverly Jones Heydinger</b>	<b>Chair</b>
<b>David Boyd</b>	<b>Commissioner</b>
<b>Nancy Lange</b>	<b>Commissioner</b>
<b>Dan Lipschultz</b>	<b>Commissioner</b>
<b>Betsy Wergin</b>	<b>Commissioner</b>

**In the Matter of a Rulemaking to  
Consider Possible Amendments to  
Minnesota Rules, parts 7810.4100  
through 7810.6100**

**Docket No. P-999/R-14-413**

**COMMENTS OF CENTURYLINK**

**Jason D. Topp  
CenturyLink, Inc.  
200 South 5<sup>th</sup> Street, Room 2200  
Minneapolis, MN 55402  
(651) 312-5364  
Jason.topp@centurylink.com**

## Table of Contents

INTRODUCTION.....	1
DISCUSSION .....	3
I. Statutes that underlie the current rules. ....	5
II. Minnesota’s voice market is competitive in every single exchange.....	6
A. The Commission should evaluate data related to residential competition because the state legislature has already declared the marketplace competitive for the vast majority of business customers.....	7
B. The Minnesota residential marketplace is extremely competitive.....	8
C. The Horizontal Merger Guidelines and the Phoenix Forbearance Order are irrelevant to this proceeding.....	9
1. The Phoenix Forbearance Order is irrelevant to this case.....	9
a. The Phoenix Forbearance Order addressed whether or not the retail marketplace would be harmed by removing unbundled network elements from Qwest’s wholesale obligations. It did not analyze the level of competitive pressure in the retail marketplace. ....	10
b. Arizona’s decisions determining that the local exchange voice market is competitive provide more appropriate guidance to this Commission. ....	12
c. Academic research since the time of the <i>Phoenix Forbearance Order</i> suggests that even if the Commission were to apply the analysis there, wireless should be considered a substitute.....	13
2. The Horizontal Merger Guidelines are not useful in this proceeding. ....	15
D. Wireless services are an appropriate substitute for wireline services.....	15
E. Competitive pressures will better meet customer needs than will regulatory mandates. ....	17
III. Proposed Rule Changes.....	18
A. Minn. Rule 7810.4100-ACCESS TO TEST FACILITIES.....	19
B. Minn. Rule 7810.4300-ACCURACY REQUIREMENTS.....	19
C. 7810.4900 ADEQUACY OF SERVICE. ....	20
D. Minn. Rule 7810.5000-UTILITY OBLIGATIONS. ....	21
E. Minn. Rule 7810.5100-TELEPHONE OPERATORS.....	21
F. Minn. Rule 7810.5200-ANSWERING TIME. ....	22
G. Minn. Rule 7810.5300-DIAL SERVICE REQUIREMENTS.....	22
H. Minn. Rule 7810.5400-INTEROFFICE TRUNKS. ....	23
I. Minn. Rule 7810.5500-TRANSMISSION REQUIREMENTS.....	23
J. Minn. Rule 7810.5800-INTERRUPTIONS OF SERVICE.....	23

K.	Minn. Rule 7810.5900-CUSTOMER TROUBLE REPORTS. ....	24
L.	Minn. Rule 7810.6000-PROTECTIVE MEASURES. ....	25
M.	Minn. Rule 7810.6100-SAFETY PROGRAM. ....	25
	CONCLUSION .....	26
	APPENDIX A	

## INTRODUCTION

CenturyLink, Inc., on behalf of its affiliated companies (“CenturyLink”), submits these comments in response to the Commission’s Request for Comments issued on August 4, 2014. In the nearly 40 years since the current rules were adopted, the Minnesota telecommunications market has undergone a transformation from a monopoly era to a vibrant competitive marketplace offering consumers a range of choices to meet their needs. Now is the time to reform the Commission’s rules to recognize this fundamentally changed marketplace and make certain that the rules are appropriate for a competitive marketplace and are applied uniformly to all telecommunications providers.

During the past 40 years, the technology used to serve customers has changed from an ubiquitous public switched telephone network to service offerings that use a variety of technologies, including wireless, voice over internet protocol service and cable telephony. All of these technologies were not contemplated when the rules were last adopted. Different technologies bring great advantages to the customer including additional services, increased mobility and access to the Internet. State goals associated with regulating telecommunications providers now include not only the traditional issues of universal service, price and service quality, but also, and most importantly, goals related to increased competition, consumer choice, investment and innovation, including the increased broadband deployment and speeds.<sup>1</sup>

Minnesota has made great progress on all of these fronts. Multiple telecommunications providers offer high quality service to their customers despite fierce

---

<sup>1</sup> See Minn. Stat. §§ 237.011 (telecommunications goals) and 237.012 (broadband goals).



competition, a technological transformation of network architecture and the significant costs associated with increasing broadband availability and speed to Minnesota customers.

Any rules this Commission adopts should recognize these changes as well as changes likely to occur in the future. For the reasons discussed in these comments, the Commission should be guided by the following principles in determining the role if any, regulation has in the competitive marketplace:

- Rules should be appropriate in a competitive marketplace;
- Rules should be sufficiently flexible to accommodate a marketplace served by continually evolving technology;
- Rules should be applied in a competitively-neutral manner; and
- Rules should only be adopted if evidence establishes that they are necessary and that the particular requirements of the rule will meet the statutory goals that govern this Commission.

CenturyLink believes that the current regulatory approach the Commission takes towards CLECs most closely resembles these principles. CLEC service quality is regulated in a manner consistent with the existence of a marketplace that is competitive. Regulation of CLECs is only enforced on a complaint basis.<sup>2</sup> This differs from the manner in which the rules are applied to the ILEC population. At the time the rules were adopted, CenturyLink was the sole provider of telecommunications in its service territory. As the marketplace has evolved under the rules, over 70% of Minnesota customers have chosen to purchase service from a provider other than CenturyLink, whether from CLECs, cable companies, standard wireless providers not subject to the Commission's rules at all, or fixed wireless companies. That alone should provide the Commission with the comfort that its approach has been

---

<sup>2</sup> Minn. R. 7811.2210, Subp. 1.A.

effective in addressing not only service quality issues in Minnesota, but also in addressing the goal of increasing competition. CenturyLink proposes that the Commission adopt this approach not only for a select few carriers, but for all carriers.

## **DISCUSSION**

The Commission has set forth an extensive list of information it intends to analyze as it decides whether this subset of service quality rules should be revised. In its May 22, 2014 Order Detailing Disposition of Petition and Initiating Rulemaking, the Commission stated that, “a rulemaking proceeding would enable it to consider how to best promote a key objective of the regulatory framework, the duty to maintain and improve service quality, and to explore whether possible rule changes would more accurately and appropriately further this policy.”

This would be a much easier exercise if the services offered to customers in the 1970s when these rules were crafted were the same as the retail services offered to customers today. They are not. There are critical fundamental differences between the retail service offerings of today and those of the past for which the rules were developed. Services we take for granted today and consider commonplace, including call waiting and other CLASS features, were cutting edge in the 1970s. At that time there were few services, a rate of return regulatory environment and a single monopoly provider. In that environment, it was important that the government somehow mandate proper investment to ensure that the monopoly carrier provided adequate service. In today’s world, the market mandates proper investment. A one-size-fits-all-rule does nothing to improve the quality of the services demanded by today’s choice-driven customers with access to a multiplicity of providers.

Similarly, service quality has a different meaning to different customers. The current rules were written when two and even four-party service was common place. To those customers the ability to place a call over an available line may have represented quality service. Customers today would never define the characteristics most critical to the delivery of quality service in the same way. Indeed, multiple calling features and the presence of high speed internet service may be the minimum many customers are willing to accept as quality service. The current rules have not kept pace with evolving customer demands.

Because the rules we are addressing were developed long ago, CenturyLink does not have a record from which to examine the factual justification for their development. The Notice implicitly assumes any attempt to deviate from the existing metric represents a diminution in quality, results in customer harm, and demands proof that a proposed modification will produce only an improvement in customer satisfaction. It is a standard that may not be attainable, but more importantly not necessary. There is nothing inherently right about the current rules nor is any change inherently wrong.

The consumer protection provisions in the statute and rules remain unchanged by these rules: Telephone Assistance Program, Telephone Replay Service, 911, deposit requirements, disconnection requirements, loading, cramming, customer notices, 3<sup>rd</sup> party providers, to name just a few. Alteration of a service quality metric is clearly a rule change that has an operational and cost impact on the Company but it may be of little import to the customer. With the wide variety of services offered to customers today it is difficult to identify a single characteristic all customers consider vital to the delivery of their services. CenturyLink strives to be an efficient supplier of innovative services its customers desire to purchase. It also understands customers differ in their definition of quality service. The

Commission played an important role when these rules were created, and it will continue to have an important, but different, role in the future. Thus, the purpose of regulation as it involves this rule development should also receive careful scrutiny in this proceeding.

**I. Statutes that underlie the current rules.**

Any rulemaking proceeding should start with the statutes that the rules are designed to implement.<sup>3</sup> The current rules, which apply to stand alone residential and business lines, rely upon Minn. Stat. §§ 237.081 and 237.10 as authority for their terms.

Minn. Stat. § 237.081 gives the Commission the power to investigate when it “believes that a service is inadequate or cannot be obtained . . .” Minn. Stat. § 237.10 authorizes the Commission to adopt “uniform rules . . . pertaining to the conduct of telephone business . . .”<sup>4</sup> In general, Minnesota statutes give the Commission the authority to adopt rules that are “uniform” and pertain to the conduct of telephone business.

---

<sup>3</sup> Minn. Stat. § 14.45.

<sup>4</sup> Minn. Stat. § 237.10 (2014): It shall be the duty of the commission to prescribe uniform rules and classifications pertaining to the conduct of intrastate telephone business and a system of accounting to be used by telephone companies in transacting this business, and it shall prescribe and furnish blanks and forms for reports, all of which shall conform as nearly as practicable to the rules, classifications, accounting systems, and reports prescribed by the Federal Communications Commission for the interstate business of like size companies.

The Commission shall by correspondence or conference where necessary use its best endeavors toward establishing uniformity in practice in all matters pertaining to regulation of the business of telephone companies between the federal government and state government of this and adjacent states.

The current rules meet neither of these criteria. They do not apply uniformly today. In the State of Minnesota, your provider only reports its service quality performance if you are a customer of a company with an alternative form of regulation plan (AFOR).<sup>5</sup> In CenturyLink's territory, that is three out of ten customers. Simply put, the current rules are not applied uniformly, do not ensure service quality to all customers, and do not reflect the competitive nature of the current communications marketplace.

## **II. Minnesota's voice market is competitive in every single exchange.**

The Notice seeks extensive information about competition in Minnesota.

Specifically, it seeks:

1. Provide evidence of competition, including the level and scope of such competition in relation to different types of customers (large business, small business, residential, etc.) and geography, and the extent to which existing competition supports the rule changes being recommended. Such evidence and analysis should, at a minimum, reflect or be guided by the following:
  - a. Any market-power analysis should, at a minimum, address the analysis set forth in: (i) *Horizontal Merger Guidelines*, U.S. Department of Justice and Federal Trade Commission, August 19, 2010; and (ii) Memorandum Opinion and Order, *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*. Federal Communications Commission, WC Docket No. 09-135, June 22, 2010.
  - b. Commenters should provide evidence of whether wireless service is a substitute for and/or a complement to wireline local service in each relevant market and, if so, to what extent.
  - c. Relevant markets should, at a minimum, reflect (i) different customer segments, including but not necessarily limited to residential, small business (1-3 lines, suggested), medium business (4-200 lines,

---

<sup>5</sup> Minn. R. 7811.2210, Subp. 1(A) ("Except as provided otherwise in this part or other commission rules, the commission shall exercise its authority over a CLEC's local services only upon complaint under subpart 17 . . .). Reporting requirements are imposed by alternative form of regulation plans (AFORs). However, the terms of AFORs are strongly influenced by these rules.

suggested) and large business (over 200 lines, suggested); and (ii) different geographic areas where customers face the same choice of competitive services (in some cases this may require defining the market at a level less than that covered by a wire center - for example where cable is offered in an urban area but not in the rural portion of the wire center).

- d. Relevant substitutes for traditional landline service should exclude services provided by carriers affiliated with the traditional landline service provider.

These comments recommend that the Commission limit its analysis to the residential voice market because other markets have been demonstrated to be competitive. CenturyLink submits affidavits from Robert Brigham and Dr. Brian Staihr to demonstrate that competition in the Minnesota residential market is extensive and exists throughout the state. Dr. Staihr's affidavit further explains why wireless service should be considered a substitute for residential wireline service.

**A. The Commission should evaluate data related to residential competition because the state legislature has already declared the marketplace competitive for the vast majority of business customers.**

The Notice seeks comment about the level of competition in a variety of market segments, including the level and scope of competition with respect to different types of customer segments including a number of segments of business customers purchasing four or more lines.<sup>6</sup> While the level of competition is significant for all types of customers, CenturyLink recommends that the Commission focus its analysis of the issue on the residential marketplace.

This approach is appropriate because there is no doubt that the Minnesota business market is competitive. For the business customers purchasing four or more lines, the state

---

<sup>6</sup> Notice, §1.d.

legislature has defined the entire state as competitive marketplace through its passage of Minn. Stat. § 237.411. The number of business customers that purchase fewer than four lines in Minnesota from CenturyLink is an extraordinarily small number of customers. Thus, either very few Minnesota business customers purchase fewer than four lines or the marketplace for such customers is so competitive that most such customers have opted to purchase such services from other providers.

**B. The Minnesota residential marketplace is extremely competitive.**

Even if the Commission focuses on the residential marketplace alone, there is no doubt that the market is extremely competitive. As stated above, 70% of residential customers in Minnesota have made the choice to purchase service from non-incumbent providers. CenturyLink submits the affidavit of Mr. Robert Brigham addressing the level of competition in Minnesota. Mr. Brigham demonstrates that:

- Since 2001, CenturyLink’s access lines have decreased from 2,251,637 to 737,283, a decrease of over 67%.<sup>7</sup> At the same time Minnesota’s population has increased by approximately 10.7%.<sup>8</sup>
- In the same time period, the percentage of households CenturyLink serves has decreased from close to 100% to approximately 28%.<sup>9</sup>
- Competition is significant in every wire center CenturyLink serves. Non-incumbent providers serve more than 50% of the households in 201 of 219 wire centers.<sup>10</sup>
- Wireless providers dominate the Minnesota voice market, providing 67.5% of voice connections.<sup>11</sup>
- Wireless communication is the primary method of placing 911 calls, with the FCC reporting that 70% of 911 calls are placed from wireless phones.<sup>12</sup>

---

<sup>7</sup> Affidavit of Robert Brigham (“Brigham Affidavit”), ¶¶ 6.

<sup>8</sup> Brigham Affidavit, ¶ 7.

<sup>9</sup> Brigham Affidavit, ¶¶ 8, 14

<sup>10</sup> Brigham Affidavit, ¶¶ 9-10.

<sup>11</sup> Brigham Affidavit, ¶ 12.

- 37.2% of Minnesota customers relied only on wireless services and that percentage continues to increase.<sup>13</sup>
- Wireless service is available in nearly all areas of Minnesota.<sup>14</sup>
- Non-ILEC wireline providers provide more access lines in Minnesota than do ILECs.<sup>15</sup>

In short, for nearly every Minnesota customer, competitive alternatives exist beyond an incumbent landline phone. The Commission should craft its service quality rules in light of competitive pressures that providers face if they do not provide high quality service.

**C. The Horizontal Merger Guidelines and the Phoenix Forbearance Order are irrelevant to this proceeding.**

CenturyLink submits the affidavit of Dr. Brian Staihr analyzing whether the residential voice marketplace in Minnesota is competitive. Dr. Staihr concludes that the market is indeed highly competitive and explains the shortcomings of the Commission's proposed analysis in the Notice.

**1. The Phoenix Forbearance Order is irrelevant to this case.**

The Notice requests comments on the *Phoenix Forbearance Order* in connection with any market power analysis. The *Phoenix Forbearance Order* is irrelevant to this proceeding for a variety of reasons. In fact, even the Arizona Commission did not use the analysis of the *Phoenix Forbearance Order* when it analyzed whether or not the Arizona retail marketplace was competitive.

---

<sup>12</sup> FCC Consumer Guide, 911 Wireless Services (Oct. 29, 2014), available at <http://www.fcc.gov/guides/wireless-911-services>.

<sup>13</sup> Brigham Affidavit, ¶ 16, Ex. RHB 5.

<sup>14</sup> Brigham Affidavit, ¶ 25.

<sup>15</sup> Brigham Affidavit, ¶ 12.



- a. **The Phoenix Forbearance Order addressed whether or not the retail marketplace would be harmed by removing unbundled network elements from Qwest’s wholesale obligations. It did not analyze the level of competitive pressure in the retail marketplace.**

The purpose of the Phoenix Unbundled Network Element (“UNE”) Forbearance proceeding and this rulemaking proceeding are very different. In March 2009, pursuant to 47 U.S.C § 160 of the federal code, Qwest requested forbearance, in the Phoenix MSA, from loop and transport unbundling regulation pursuant to 47 U.S.C. §§ 251(c) and 271(c)(2)(B)(ii) of the Telecommunications Act.<sup>16</sup> Qwest sought this relief for its wholesale provision of voice-grade, DS1 and DS3 unbundled loop and transport facilities.

There are profound differences between the FCC Phoenix UNE Forbearance filing and the question in this case – whether or not the presence of competition should impact Commission service quality standards. In the FCC case, Qwest sought forbearance from FCC regulation of UNEs pursuant to the forbearance statute, 47 U.S.C § 160 of the federal code. If the FCC had granted forbearance in that case, it would have refrained from regulation of wholesale UNEs pursuant to 47 U.S.C. §§ 251(c) and 271(c)(2)(B)(ii) of the Telecommunications Act. In the Phoenix UNE Forbearance Petition, Qwest did not seek deregulation or a determination of effective competition for retail services. Thus, the request in the Phoenix UNE Forbearance Petition focused on the regulation of wholesale UNEs provided to CLECs, not retail services provided to end users.

On June 22, 2010, the FCC denied Qwest’s Petition for Forbearance in the Phoenix MSA. However, the Order addressed Section 251(c) loop and transport UNE unbundling

---

<sup>16</sup> *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, WC Docket 09-135 (filed Mar. 24, 2009), p. 7.

requirements, and made no findings regarding effective competition for retail local exchange services. The FCC focused on the impact that the deregulation of wholesale UNEs would have on the retail market. This, of course, is a far different question than whether there is competition in the Minnesota retail voice market. No one is proposing forbearance from wholesale UNE regulation here. In its Order, the FCC stated (emphasis added):

98. *Retail Mass Market Services.* For the reasons explained in our competitive analysis, *we cannot conclude that there is sufficient facilities-based competition for retail mass market services in the Phoenix MSA to meet the [47 USC § 160(a)(1)] criteria for UNE forbearance.* As explained above, Qwest and Cox dominate the relevant mass market services. Together, they have a combined market share of [REDACTED] percent in Qwest's service territory in the Phoenix MSA. With the exception of Cox, all other providers of the relevant mass market services remain dependent on Qwest's facilities. Nothing in the record indicates that the recognized barriers to entry, which UNEs are designed to help competitors overcome, have been lowered to enable similar competitive facilities deployment by any provider other than Cox. Thus, *there is no evidence that, absent section 251(c)(3) regulation, Qwest would be subject to effective retail competition for mass market customers.* For the reasons discussed above, that is inadequate competition to ensure that the rates and practices for retail mass market services would be just, reasonable, and non-discriminatory.

While the FCC evaluates the retail mass market in its forbearance analysis, it does so only within the context of how UNE forbearance would impact this market. The FCC determined that UNE forbearance—which is not proposed in this case—would potentially harm competition in the Phoenix MSA retail market specifically because it would remove a mechanism by which CLECs can compete. Because CenturyLink QC is not and cannot seek the removal of section 251(c)(3) regulation in this case, the Phoenix UNE forbearance analysis is not applicable here.

By contrast, the current proceeding addresses the question of whether or not the retail marketplace is sufficiently competitive so that service quality regulation should be reduced. Thus, this proceeding involves a different type of relief (modification of service quality rules rather than elimination of wholesale UNE obligations), for a different class of services (local retail services rather than wholesale UNEs) under a different set of criteria (Minnesota

statutes versus 47 U.S.C. § 160(a)). The FCC’s findings in the Phoenix UNE Forbearance case cannot and should not be applied to this case.

**b. Arizona’s decisions determining that the local exchange voice market is competitive provide more appropriate guidance to this Commission.**

In a more recent docket, the Arizona Commission addressed whether the local exchange voice market in Arizona is “competitive.” That decision is more relevant to this rulemaking than the FCC Phoenix UNE Forbearance proceeding. In the Arizona case, CenturyLink QC sought “competitive classification” of its retail services that would allow greater pricing flexibility and pricing parity with CLECs in Arizona. In Docket No. T-01051B-11-0378, CenturyLink QC reached a settlement with the Arizona Corporation Commission Staff (“Arizona Staff”), the state Residential Utility Consumer office (“RUCO”) and the Arizona Investment Council that all retail services in CenturyLink QC’s territory were to be declared “competitive” subject to certain conditions as outlined in the settlement. On July 3, 2012, the Administrative Law Judge issued a Recommended Order approving the Settlement, and on August 21, 2012, the Commission approved the settlement.

The criteria for determining that a service is “competitive” in Arizona (A.A.C. § R14-2-1108) is very similar to criteria applied in other retail competition cases.<sup>17</sup> Based on these

---

<sup>17</sup> A.A.C. §R14-2-1108 states: “A telecommunications company may petition the Commission to classify as competitive any service or group of services provided by the company.” The petition for competitive classification “shall set forth the conditions within the relevant market that demonstrate that the telecommunications service is competitive.” Rule 1108 states that the following information should be provided in a petition to classify services as competitive: (1) A description of the general economic conditions that exist which make the relevant market for the service one that is competitive; (2) The number of alternative providers of the service; (3) The estimated market share held by each alternative provider of the service; (4) The names and addresses of any alternative providers of the service that are also affiliates of the telecommunications company, as defined in R14-2-801;

criteria, the settling parties in Arizona agreed that CenturyLink’s retail services are subject to “competition” and that pricing flexibility was appropriate. Significantly, the Arizona Staff and RUCO agreed that the declaration of “competitive” classification, with relaxed regulation, was in the public interest despite acknowledging that not all customers in Arizona have the same level of competitive options. For example, Staff Witness Mr. Elijah Abinah stated in support of the settlement: “Staff recognizes that while there are varying degrees of competition in the various markets, there is some competition in most. To that effect, Staff believes the Settlement Agreement is in the public interest . . . .”<sup>18</sup>

It may be observed that in Arizona—the very same state for which the FCC issued its Phoenix Forbearance Order—the settling parties did not adopt arguments like those used in the Phoenix Forbearance Petition. In the Arizona case, CenturyLink QC did not present a traditional market power analysis with a cross-elasticity study, yet the parties were able to agree that CenturyLink QC should be provided with more pricing flexibility, and pricing parity with other providers such as Cox Communications.

- c. Academic research since the time of the *Phoenix Forbearance Order* suggests that even if the Commission were to apply the analysis there, wireless should be considered a substitute.**

The FCC’s Phoenix UNE Forbearance Order observed a dearth of econometric analysis on the subject of wireline/wireless cross-elasticity. However, following the FCC’s

---

(5) The ability of alternative providers to make functionally equivalent or substitute services readily available at competitive rates, terms, and conditions; and (6) Other indicators of market power, which may include growth and shifts in market share, ease of entry and exit, and any affiliation between and among alternative providers of the services.

<sup>18</sup> Testimony of Elijah Abinah on Behalf of Staff, May 25, 2012, *In The Matter Of The Application of Qwest Corporation dba CenturyLink-QC to Classify and Regulate Retail Local Exchange Telecommunications Services As Competitive And To Classify And Deregulate Certain Services As Non-Essential*, Docket T-01051B-11-0378, p. 12.

Phoenix UNE Forbearance Order, one economist published a study to estimate the cross-elasticity of demand between wireless and wireline. In the December 2011 issue of the journal *Telecommunications Policy*, economist Kevin Caves published an article with the following Abstract, finding empirical cross-elastic relationships:

For the better part of a decade, a non-trivial and steadily increasing share of households in the United States has come to rely exclusively on wireless technology for their voice communications needs. Aggregate data show clearly (1) that the share of wireless-only households has risen steadily in recent years; while (2) the price of wireless service has fallen substantially relative to traditional landline service. The aggregate data are therefore consistent with the hypothesis that wireless/wireline cross-price elasticities are positive and economically significant. However, econometric corroboration of this conjecture has proven elusive in the existing empirical literature, which has relied on datasets compiled at the turn of the millennium, when wireless substitution was very limited. Partly in response to this dearth of econometric evidence, regulators and competition authorities in the US have generally been reluctant to conclude that wireless voice service represents a meaningful economic substitute for traditional wireline telephony. In the absence of reliable econometric estimates, even the sign of the relevant cross-price elasticities is an open question: The majority of US households maintain both a landline and at least one wireless connection, so it is unclear, *ex ante*, whether the two services are substitutes or complements. Thus, it is critical to identify consumer behavior at the margin. Using state-level panel data from a relatively recent time period (2001–2007), this study develops and estimates a demand system that permits evaluation of the own-price, cross-price, and income elasticities of demand for wireless and wireline telephony in the United States. **A one percent decrease in the price of wireless service is estimated to decrease the demand for fixed-line service by approximately 1.2–1.3%**, and the parameter estimates imply that the Slutsky symmetry holds for the demand system. These results substantially exceed prior econometric estimates from the existing empirical literature, and **provide evidence that wireless voice service has evolved into a strong economic substitute for traditional landline service.** The parameter estimates from the demand system suggest that roughly two thirds of observed landline attrition in the United States over the sample period is attributable to the observed decline in the relative price of wireless service.<sup>19</sup>

---

<sup>19</sup> Quantifying price-driven wireless substitution in telephony, Kevin W. Caves, *Telecommunications Policy*, Sept. 7, 2011, p. 984 (emphasis added).

**2. The Horizontal Merger Guidelines are not useful in this proceeding.**

In its Notice, the Commission also requests that the parties address the analysis in the *Horizontal Merger Guidelines* (“Merger Guidelines”).<sup>20</sup> The Merger Guidelines are ill suited to such analysis. Rather, the Merger Guidelines are designed to evaluate market power and to assess antitrust concerns in a proposed merger. Mergers are between two companies. The Merger Guidelines are not used to determine how service prices should be set or how services should be regulated for an entire market. It is difficult for CenturyLink to respond to this request since the two concepts could not be more unrelated.

Under the Merger Guidelines, the DOJ calculates a measure of marketplace concentration called the Herfindahl-Hirschman Indexes (“HHIs”). While the HHI provides a measure of market concentration, the HHI is not relevant to determining whether competition exists in the Minnesota marketplace. Further, HHI does not provide an indicator of CenturyLink QC’s market power, and does not provide any indication of the competitive options available to Minnesota consumers.

Thus, the DOJ/FTC utilizes the HHI to gauge the *impact of mergers*.<sup>21</sup> *It is not used to determine whether there is “effective competition” for retail services, or to determine the type of regulation that applies to setting retail prices and evaluating service quality, etc.*

**D. Wireless services are an appropriate substitute for wireline services.**

The Notice asks the parties to comment on whether wireless service should be considered a substitute for wireline service. As a practical matter, both the FCC and the

---

<sup>20</sup> Notice, §1.A, citing *Horizontal Merger Guidelines*, U.S. Department of Justice and Federal Trade Commission, Aug. 19, 2010.

<sup>21</sup> *Horizontal Merger Guidelines*, U.S. Department of Justice and the Federal Trade Commission, Issues August 19, 2010, pp. 18-19.

Commission already consider these two services substitutes for one another. That is, both the FCC and the Commission offer customers the opportunity to choose between wireline or wireless service as their lifeline alternative. In reaching that conclusion, this Commission found not only that wireless service is adequate to meet eligible telecommunications carrier obligations, but also that wireless service competes with wireline service.

Further, the Commission finds that HickoryTech's filing, subject to a satisfactory compliance filing, meets the public interest standard. Consumers would receive the benefits of competition. They would have a choice of providers, features, local calling areas, usage amounts and prices. Increasing investment in the rural infrastructure would provide improved access to emergency services and potential access to new services. There is no evidence that there would be any harm to consumers nor is there any evidence that the local service market is insufficient to support competition.<sup>22</sup>

Under these orders, there is no differentiation between the financial offset provided each qualifying customer nor is there an effort to suggest one method of communication meets the calling needs of the subscriber more effectively than the other, or even that one customer choice requires more regulatory oversight than the other.

The affidavit of Dr. Staihr addresses the question of whether wireless service competes with wireline service and demonstrates that wireless service should be considered a substitute for purposes of this proceeding. This conclusion is bolstered by the following points:

- Over 37% of Minnesota consumers have chosen to eliminate landlines entirely and only use wireless service.

---

<sup>22</sup> *In the Matter of the Petition of Minnesota Southern Wireless Company d/b/a HickoryTech for Designation as an Eligible Telecommunications Carrier Under 47 U.S.C. §214(e)(2), Order Granting Conditional Approval and Requiring Additional Filings, Dkt. PT-6213/M-03-591 (Aug. 14, 2003), p. 9.*

- As customers have increasingly chosen wireless service the number of wireline customers has decreased in Minnesota. This relationship strongly suggests that wireless service competes against wireline service.
- Quantitative analysis suggests that there is a relationship between wireless prices and the demand for wireline services.

Any other finding by this commission would run contrary to the realities of the marketplace reflected in the data presented and experienced by Minnesota consumers. As an example, if 37% of all Minnesotans chose to purchase their groceries solely from Target, Target is an alternative to Cub Foods. The same logic applies here.

**E. Competitive pressures will better meet customer needs than will regulatory mandates.**

In addition to the affidavit from Mr. Brigham establishing the level of competition in Minnesota, CenturyLink submits the affidavit of Dr. Brian Staihr explaining the economic impact of this competition on Minnesota consumers and how it relates to the rules the Commission decides to adopt. Dr. Staihr concludes:

- Wireless providers impose significant competitive pressure in Minnesota.<sup>23</sup>
- Competitive pressures in Minnesota are real and significant.<sup>24</sup>
- Competitive pressures lessen the need for regulatory mandates addressing service quality.<sup>25</sup>
- Regulatory roles must change in a competitive marketplace, or risk harming the level of competition, the competitors, and the consumers.<sup>26</sup>

---

<sup>23</sup> Affidavit of Dr. Brian K. Staihr (“Staihr Affidavit”), pp. 15-18.

<sup>24</sup> Staihr Affidavit, p. 2.

<sup>25</sup> Staihr Affidavit, pp. 17-22.

<sup>26</sup> Staihr Affidavit, p. 22.



### III. Proposed Rule Changes.

Section 2 of the Notice requests that parties recommend specific changes to existing rules:

2. Provide proposed language for each rule change sought, and for each rule change provide:
  - a. A demonstration of how the recommended rule change would impact retail service quality and the extent to which service quality would be adequately protected by competition and/or the recommended rule change;
  - b. An analysis of how the change would, if at all, maintain or improve service quality;
  - c. An analysis and evidence of the impact any recommended change would potentially have on competition, local exchange carriers and wholesale service quality;
  - d. Any other relevant evidence, analysis and argument supporting any recommended rule change and the impact of such change on telecommunications consumers;

CenturyLink believes all of the service quality rules at issue in this proceeding could be stricken. The highly competitive nature of the voice marketplace in Minnesota means that any regulations the Commission imposes will (1) impose inefficient costs on competitors; (2) provide advantages to certain competitors (such as wireless or VoIP providers) while providing disadvantages to other competitors; and (3) will substitute regulatory judgment for the judgments of consumers. Nonetheless, CenturyLink does not oppose some basic service quality rules provided that they apply equally to all providers and are based on a solid evidentiary showing that the standards are needed to protect Minnesota customers. There is no evidence that the current rules meet such goals in today's marketplace.

For each of the proposed rule changes, CenturyLink identifies its proposed modifications and provides a shorthand response explaining its position regarding the

concerns the Commission has raised with each issue based on the affidavits of Dr. Stair and Mr. Brigham filed with these comments.<sup>27</sup>

**A. Minn. Rule 7810.4100-ACCESS TO TEST FACILITIES.**

**CenturyLink Proposed modification: Delete**

~~**7810.4100 ACCESS TO TEST FACILITIES.**~~

~~Each telephone utility shall provide or have access to test facilities which will enable it to determine the operating and transmission capabilities of circuit and switching equipment, either for routine maintenance or for fault location.~~

Rule 7810.4100 refers to obsolete testing procedures and technology. it does not address the complexity of the communications network and does nothing to ensure the health of the network. The facility descriptions in the rule are antiquated and share few similarities with the technology in today's networks such as Internet Protocol (IP) technology. The IP switches, or "soft switches," of today use Quality of Service (QOS) protocols that have inherent testing and maintenance capabilities that render Rule 7810.4100 obsolete.

**B. Minn. Rule 7810.4300-ACCURACY REQUIREMENTS.**

**CenturyLink Proposed Modification: Delete**

~~**7810.4300 ACCURACY REQUIREMENTS.**~~

~~All meters and/or recording devices used to record data and prepare customers' bills shall be in good mechanical and electrical condition, shall be accurately read, and shall not involve approximations. All meters and/or recording devices shall accurately perform the following.~~

~~For message rate service, where timing of length of message is not involved, the meter and/or recording device shall show accurately the number of completed messages sent by the station which it is measuring. For message rate and/or toll service when in addition to recording the calls it is necessary to time the calls, the meter and/or recording device shall show accurately the number of calls and the talking time involved in each call and the station making such call. When the~~

---

<sup>27</sup> For reference, see attached Appendix A with a summary of CenturyLink's position.

~~recording equipment provides coded information that is used to automatically prepare customer bills, accurate interpretation of such coded information is required.~~

Accurate and timely preparation of customer bills is important to telecommunications providers but the process described by the rule bears little resemblance to the manner in which customer bills are rendered. Rule 7810.4300 describes an outdated process and technology that is no longer in use and therefore should be deleted.

**C. 7810.4900 ADEQUACY OF SERVICE.**

**CenturyLink Proposed Modification: Delete**

~~Each utility shall employ reasonable engineering and administrative procedures to determine the adequacy of service being provided to the customer. Traffic studies shall be made and records maintained to the extent and frequency necessary to determine that sufficient equipment and an adequate operating force are provided during the busy hour, busy season. Each telephone utility shall provide emergency service in all exchanges operated in which regular service is not available at certain periods during the 24 hours of the day. When service is not continuous for the full 24-hour day, proper arrangements shall be made for handling emergency calls during the off periods by the use of alarms maintained in proper conditions with someone conveniently available so that emergency calls will be given prompt attention.~~

~~Each utility shall employ adequate procedures for assignment of facilities. The assignment record shall be kept up to date and checked periodically to determine if adjustments are necessary to maintain proper balance in all groups.~~

The specific provisions in this rule are in many respects out of date and not appropriate for an internet protocol environment. The remainder of the rule simply requires adequate service and adds little to the statutory requirement that providers offer reasonably adequate service which is also covered by Rule 7810.5000. In a competitive environment, this rule is not needed and should be stricken.

**D. Minn. Rule 7810.5000-UTILITY OBLIGATIONS.**

**CenturyLink Proposed Modification: Modify as indicated below**

**7810.5000 UTILITY OBLIGATIONS.**

~~Each telephone utility telecommunications provider shall provide telephone service to the public in its service area in accordance with its rules and tariffs on file with the commission. Such service shall meet or exceed the standards set forth in this chapter. Each telephone utility telecommunications provider has the obligation of continually reviewing its operations to assure the furnishing of adequate service. Each telephone utility shall maintain records of its operations in sufficient detail as is necessary to permit such review and such records shall be made available for inspection by the commission upon request at any time within the period prescribed for retention of such records. Each utility shall make measurements to determine the level of service for each item included in these rules. Each utility shall provide the commission or its staff with the measurements and summaries thereof for any of the items included herein on request of the commission or its staff. Records of these measurements and summaries shall be retained by the utility as specified by the commission.~~

~~Where a telephone utility is generally operated in conjunction with any other enterprise, suitable records shall be maintained so that the results of the telephone operation may be determined upon reasonable notice and request by the commission.~~

CenturyLink has proposed changes to 7810.5000 to eliminate unnecessary record-keeping and details that reflect antiquated operational methods that are no longer in use, and to eliminate vague references and obligations.

**E. Minn. Rule 7810.5100-TELEPHONE OPERATORS.**

**CenturyLink Proposed Modification: Delete**

~~Suitable practices shall be adopted by each telephone utility concerning the operating methods to be employed by operators with the objective of providing efficient and pleasing service to the customers. Telephone operators shall be instructed to be courteous, considerate, and efficient in the handling of all calls, and to comply with the provisions of the Communications Act of 1934 in maintaining the secrecy of communications. All operator handled calls shall be carefully supervised and disconnects made promptly. When an operator is notified by a customer that the customer has reached a wrong number on a direct dialed call, the customer shall be given a bill credit when the claim has been substantiated.~~

This rule has been subsumed by technological changes in the industry and should be deleted.

**F. Minn. Rule 7810.5200-ANSWERING TIME.**

**CenturyLink Proposed Modification: Delete**

~~Adequate forces shall be provided at local manual offices in order to assure that 95 percent of the calls will be answered within ten seconds. Ninety percent of repair service calls, calls to the business office, and other calls shall be answered within 20 seconds. An "answer" shall mean that the operator or representative is ready to render assistance and/or ready to accept information necessary to process the call. An acknowledgment that the customer is waiting on the line shall not constitute an answer.~~

This rule imposes an obligation and costs on specific telephone companies that provide service to a small percentage of the marketplace. Competition provides the incentive to telephone companies like CenturyLink to respond to the calls, or other forms of contact from customers or potential customers expeditiously. Customers will be best served if the marketplace defines this obligation rather than the imposition of artificial standards.

**G. Minn. Rule 7810.5300-DIAL SERVICE REQUIREMENTS.**

**CenturyLink Proposed Modification: Delete**

~~Sufficient central office capacity and equipment shall be provided to meet the following minimum requirements during average busy season, busy hour:~~

~~A. Dial tone within three seconds on at least 98 percent of telephone calls. Dial tone delays of more than 2.6 percent of calls on a continuing basis indicates a need for investigative or corrective action.~~

~~B. Complete dialing of called numbers on at least 97 percent of telephone calls without encountering an all-trunks busy condition within the central office.~~

CenturyLink recommends the Commission repeal Rule 7810.5300 because it is obsolete. The rule does not reflect current methods of operation and does nothing to enhance the quality of service delivered by a telecommunications provider.

**H. Minn. Rule 7810.5400-INTEROFFICE TRUNKS.**

**CenturyLink Proposed Modification: Delete**

~~Local interoffice trunks shall be provided so that at least 95 percent of telephone calls offered to the group will not encounter an all-trunks-busy condition. For toll connecting trunks, this figure shall be at least 97 percent. When the completion rate falls below 95 percent on a continuing basis investigative or corrective action should be initiated.~~

CenturyLink recommends that this rule be deleted. All providers have significant incentive to ensure that adequate capacity exists for the completion of calls. To the extent an issue exists with capacity that requires regulatory intervention, the Commission has the authority to resolve such issues.

**I. Minn. Rule 7810.5500-TRANSMISSION REQUIREMENTS.**

**CenturyLink Proposed Modification**

Telephone ~~utilities~~ providers shall furnish and maintain adequate plant, equipment, and facilities to provide satisfactory transmission of communications between customers in their service areas. Transmission shall be at adequate volume levels and free of excessive distortion. Levels of noise and cross talk shall be such as not to impair communications.

CenturyLink proposes a slight modification to this rule in order to make it apply uniformly to telecommunications providers.

**J. Minn. Rule 7810.5800-INTERRUPTIONS OF SERVICE.**

~~Each telephone utility~~ Every telecommunications provider shall make all reasonable efforts to prevent interruptions of service. When interruptions occur, the ~~utility~~ telecommunications provider shall reestablish service with the shortest possible delay. ~~The minimum objective should be to clear 95 percent of all out-of-service troubles~~

~~within 24 hours of the time such troubles are reported. In the event that service must be interrupted for purposes of working on the lines or equipment, the work shall be done at a time which will cause minimal inconvenience to customers. Each utility shall attempt to notify each affected customer in advance of the interruption. Emergency service shall be available, as required, for the duration of the interruption.~~

~~Every telephone utility~~ Each telecommunications provider shall inform the commission, as soon as possible, of any major catastrophe such as that caused by fire, flood, violent wind storms, or other acts of God which apparently will result in prolonged and or serious interruption of service to a large number of customers.

CenturyLink has proposed modifications to make this standard applicable to the entire industry and has recommended elimination of the metric imposed by current rules.

CenturyLink has detailed the adverse consequences of the current rule in its waiver petition and subsequent filings and incorporates that material into these comments by reference.<sup>28</sup>

Because of the importance of restoring out of service conditions, CenturyLink supports maintaining a rule without the metrics included historically. The Commission receives reporting on these metrics for an extremely small subset of providers and relatively few customers in Minnesota. There is no evidence to suggest that the existence or absence of these metrics has a significant impact on customer service quality.

#### **K. Minn. Rule 7810.5900-CUSTOMER TROUBLE REPORTS.**

##### **CenturyLink Proposed Modification: Delete**

~~Arrangements shall be made to receive customer trouble reports 24 hours daily and to clear trouble of an emergency nature at all hours, consistent with the bona fide needs of the customer and personal safety of utility personnel.~~

~~Each telephone utility shall maintain an accurate record of trouble reports made by its customers. This record shall include appropriate identification of the customer or service affected, the time, date, and nature of the report, the action taken to clear trouble or satisfy the complaint, and the date and time of trouble clearance or other~~

---

<sup>28</sup> See *In the Matter of the Petition of CenturyLink, Inc., on behalf of its Affiliated Companies for Waiver of Minnesota Rule Part 7810.5800*, Dkt. P-421/AM-14-255, Affidavit of Patrick Haggerty (May 21, 2014).

~~disposition. This record shall be available to the commission or its authorized representatives upon request at any time within the period prescribed for retention of such records.~~

~~It shall be the objective to so maintain service that the average rate of all customer trouble reports in an exchange is no greater than 6.5 per 100 telephones per month. A customer trouble report rate of more than 8.0 per 100 telephones per month by repair bureau on a continuing basis indicates a need for investigative or corrective action.~~

The competitive marketplace has rendered the current rule obsolete. The Commission retains complaint authority notwithstanding the presence of this rule. Thus, the current rule does nothing to promote improved customer service and therefore should be eliminated.

**L. Minn. Rule 7810.6000-PROTECTIVE MEASURES.**

**CenturyLink Recommended Modification: Delete**

~~Each utility shall exercise reasonable care to reduce the hazards to which its employees, its customers, and the general public may be subjected. The utility shall give reasonable assistance to the commission in the investigation of the cause of accidents and in the determination of suitable means of preventing accidents.~~

This rule is antiquated because workplace safety is covered by other specialized agencies (e.g. OSHA). It should be eliminated.

**M. Minn. Rule 7810.6100-SAFETY PROGRAM.**

**CenturyLink Recommendation: Maintain**

Each utility shall adopt and execute a safety program, fitted to the size and type of its operations. As a minimum, the safety program should:

- A. require employees to use suitable tools and equipment in order that they may perform their work in a safe manner;
- B. instruct employees in safe methods of performing their work; and
- C. instruct employees who, in the course of their work, are subject to the hazard of electrical shock, asphyxiation, or drowning, in accepted methods of artificial respiration.



This rule could be eliminated for the same reasons CenturyLink recommends eliminating Rule 7810.6000. Nonetheless, if the Commission decides to retain this rule, CenturyLink does not object.

### CONCLUSION

CenturyLink believes that the current rules could be eliminated, but at the very least, should be significantly reformed. The technology underlying telecommunications service has fundamentally changed since these rules were passed. Significant competition exists in every wire center CenturyLink serves. The competitive marketplace is sufficient to drive CenturyLink and all competitors to meet the changing service expectations of customers. The thriving Minnesota marketplace where a majority of customers have chosen to purchase telecommunications service from competitors reinforces the need to eliminate or significantly revise these rules.

Dated this 4<sup>th</sup> day of December, 2014.

CENTURYLINK, INC.

/s/ Jason D. Topp  
Jason D. Topp  
200 South 5<sup>th</sup> Street, Room 2200  
Minneapolis, MN 55402  
(651) 312-5363

## Appendix A

### A. Minn. Rule 7810.4100-ACCESS TO TEST FACILITIES.

CenturyLink Proposed modification: Delete

#### ~~7810.4100 ACCESS TO TEST FACILITIES.~~

~~Each telephone utility shall provide or have access to test facilities which will enable it to determine the operating and transmission capabilities of circuit and switching equipment, either for routine maintenance or for fault location.~~

**Impacts to Service Quality:** None

**Maintain, or Improve Service Quality:** Neutral

**Impacts on Competition, LEC, or Wholesale Service Quality:** Treats LECs like Wireless (“Competitive Parity”)

**Impacts on Telecommunications Consumers:** None

### B. Minn. Rule 7810.4300-ACCURACY REQUIREMENTS.

CenturyLink Proposed Modification: Delete

#### ~~7810.4300 ACCURACY REQUIREMENTS.~~

~~All meters and/or recording devices used to record data and prepare customers' bills shall be in good mechanical and electrical condition, shall be accurately read, and shall not involve approximations. All meters and/or recording devices shall accurately perform the following.~~

~~For message rate service, where timing of length of message is not involved, the meter and/or recording device shall show accurately the number of completed messages sent by the station which it is measuring. For message rate and/or toll service when in addition to recording the calls it is necessary to time the calls, the meter and/or recording device shall show accurately the number of calls and the talking time involved in each call and the station making such call. When the recording equipment provides coded information that is used to automatically prepare customer bills, accurate interpretation of such coded information is required.~~

**Impacts to Service Quality:** None

**Maintain, or Improve Service Quality:** Neutral

**Impacts on Competition, LEC, or Wholesale Service Quality:** Competitive Parity

**Impacts on Telecommunications Consumers:** None

**C. 7810.4900 ADEQUACY OF SERVICE.**

CenturyLink Proposed Modification: Delete

~~Each utility shall employ reasonable engineering and administrative procedures to determine the adequacy of service being provided to the customer. Traffic studies shall be made and records maintained to the extent and frequency necessary to determine that sufficient equipment and an adequate operating force are provided during the busy hour, busy season. Each telephone utility shall provide emergency service in all exchanges operated in which regular service is not available at certain periods during the 24 hours of the day. When service is not continuous for the full 24-hour day, proper arrangements shall be made for handling emergency calls during the off periods by the use of alarms maintained in proper conditions with someone conveniently available so that emergency calls will be given prompt attention.~~

~~Each utility shall employ adequate procedures for assignment of facilities. The assignment record shall be kept up to date and checked periodically to determine if adjustments are necessary to maintain proper balance in all groups.~~

**Impacts to Service Quality: None**

**Maintain, or Improve Service Quality: None**

**Impacts on Competition, LEC, or Wholesale Service Quality: Competitive Parity**

**Impacts on Telecommunications Consumers: None**

**D. Minn. Rule 7810.5000-UTILITY OBLIGATIONS.**

CenturyLink Proposed Modification: Modify as indicated below

**7810.5000 UTILITY OBLIGATIONS.**

~~Each telephone utility telecommunications provider shall provide telephone service to the public in its service area in accordance with its rules and tariffs on file with the commission. Such service shall meet or exceed the standards set forth in this chapter. Each telephone utility telecommunications provider has the obligation of continually reviewing its operations to assure the furnishing of adequate service. Each telephone utility shall maintain records of its operations in sufficient detail as is necessary to permit such review and such records shall be made available for inspection by the commission upon request at any time within the period prescribed for retention of such records. Each utility shall make measurements to determine the level of service for each item included in these rules. Each utility shall provide the commission or its staff with the measurements and summaries thereof for any of the items included herein on request of the commission or its staff. Records of these measurements and summaries shall be retained by the utility as specified by the commission.~~

~~Where a telephone utility is generally operated in conjunction with any other enterprise, suitable records shall be maintained so that the results of the telephone operation may be determined upon reasonable notice and request by the commission.~~

**Impacts to Service Quality:** Consumer Defined

**Maintain, or Improve Service Quality:** Consumers define the specific service quality that meet their needs based on their choice of provider. Such choices in an atmosphere of competition have been shown to enhance rather than detract from service quality. Hereafter, this explanation will be referred to as “Consumer Defined.”

**Impacts on Competition, LEC, or Wholesale Service Quality:** Competitors will be able to differentiate their services based on service quality without the constraints imposed by the current rule. This distinction will be referred to as a “Competitive Differentiator.”

**Impacts on Telecommunications Consumers:** Consumer Defined

#### **E. Minn. Rule 7810.5100-TELEPHONE OPERATORS.**

CenturyLink Proposed Modification: Delete

~~Suitable practices shall be adopted by each telephone utility concerning the operating methods to be employed by operators with the objective of providing efficient and pleasing service to the customers. Telephone operators shall be instructed to be courteous, considerate, and efficient in the handling of all calls, and to comply with the provisions of the Communications Act of 1934 in maintaining the secrecy of communications. All operator-handled calls shall be carefully supervised and disconnects made promptly. When an operator is notified by a customer that the customer has reached a wrong number on a direct-dialed call, the customer shall be given a bill credit when the claim has been substantiated.~~

**Impacts to Service Quality:** None

**Maintain, or Improve Service Quality:** None

**Impacts on Competition, LEC, or Wholesale Service Quality:** None

**Impacts on Telecommunications Consumers:** None

#### **F. Minn. Rule 7810.5200-ANSWERING TIME.**

CenturyLink Proposed Modification: Delete

~~Adequate forces shall be provided at local manual offices in order to assure that 95 percent of the calls will be answered within ten seconds. Ninety percent of repair service calls, calls to the business office, and other calls shall be answered within 20 seconds. An "answer" shall mean that the operator or representative is ready to render assistance and/or ready to accept information necessary to process the call. An acknowledgment that the customer is waiting on the line shall not constitute an answer.~~

**Impacts to Service Quality:** Consumer Defined  
**Maintain, or Improve Service Quality:** Consumer Defined  
**Impacts on Competition, LEC, or Wholesale Service Quality:** Competitive Differentiator  
**Impacts on Telecommunications Consumers:** Consumer Defined

**G. Minn. Rule 7810.5300-DIAL SERVICE REQUIREMENTS.**

CenturyLink Proposed Modification: Delete

~~Sufficient central office capacity and equipment shall be provided to meet the following minimum requirements during average busy season, busy hour:~~

~~A. Dial tone within three seconds on at least 98 percent of telephone calls. Dial tone delays of more than 2.6 percent of calls on a continuing basis indicates a need for investigative or corrective action.~~

~~B. Complete dialing of called numbers on at least 97 percent of telephone calls without encountering an all-trunks busy condition within the central office.~~

**Impacts to Service Quality:** None  
**Maintain, or Improve Service Quality:** Neutral  
**Impacts on Competition, LEC, or Wholesale Service Quality:** Competitive Parity  
**Impacts on Telecommunications Consumers:** None

**H. Minn. Rule 7810.5400-INTEROFFICE TRUNKS.**

CenturyLink Proposed Modification: Delete

~~Local interoffice trunks shall be provided so that at least 95 percent of telephone calls offered to the group will not encounter an all-trunks busy condition. For toll connecting trunks, this figure shall be at least 97 percent. When the completion rate falls below 95 percent on a continuing basis investigative or corrective action should be initiated.~~

**Impacts to Service Quality:** None  
**Maintain, or Improve Service Quality:** Neutral  
**Impacts on Competition, LEC, or Wholesale Service Quality:** Competitive Parity  
**Impacts on Telecommunications Consumers:** None

**I. Minn. Rule 7810.5500-TRANSMISSION REQUIREMENTS.**

**CenturyLink Proposed Modification**

Telephone ~~utilities providers~~ shall furnish and maintain adequate plant, equipment, and facilities to provide satisfactory transmission of communications between customers in their

service areas. Transmission shall be at adequate volume levels and free of excessive distortion. Levels of noise and cross talk shall be such as not to impair communications.

**Impacts to Service Quality:** None

**Maintain, or Improve Service Quality:** Neutral

**Impacts on Competition, LEC, or Wholesale Service Quality:** Competitive Parity

**Impacts on Telecommunications Consumers:** None

**J. Minn. Rule 7810.5800-INTERRUPTIONS OF SERVICE.**

~~Each telephone utility~~ Every telecommunications provider shall make all reasonable efforts to prevent interruptions of service. When interruptions occur, the ~~utility~~ telecommunications provider shall reestablish service with the shortest possible delay. ~~The minimum objective should be to clear 95 percent of all out-of-service troubles within 24 hours of the time such troubles are reported. In the event that service must be interrupted for purposes of working on the lines or equipment, the work shall be done at a time which will cause minimal inconvenience to customers. Each utility shall attempt to notify each affected customer in advance of the interruption. Emergency service shall be available, as required, for the duration of the interruption.~~

~~Every telephone utility~~ Each telecommunications provider shall inform the commission, as soon as possible, of any major catastrophe such as that caused by fire, flood, violent wind storms, or other acts of God which apparently will result in prolonged and or serious interruption of service to a large number of customers.

**CenturyLink Proposed Modification:** Modify

**Impacts to Service Quality:** Consumer Define

**Maintain, or Improve Service Quality:** Consumer Defined

**Impacts on Competition, LEC, or Wholesale Service Quality:** Creates Competitive Parity

**Impacts on Telecommunications Consumers:** Consumer Defined

**K. Minn. Rule 7810.5900-CUSTOMER TROUBLE REPORTS.**

CenturyLink Proposed Modification: Delete

~~Arrangements shall be made to receive customer trouble reports 24 hours daily and to clear trouble of an emergency nature at all hours, consistent with the bona fide needs of the customer and personal safety of utility personnel.~~

~~Each telephone utility shall maintain an accurate record of trouble reports made by its customers. This record shall include appropriate identification of the customer or service affected, the time, date, and nature of the report, the action taken to clear trouble or satisfy~~

~~the complaint, and the date and time of trouble clearance or other disposition. This record shall be available to the commission or its authorized representatives upon request at any time within the period prescribed for retention of such records.~~

~~It shall be the objective to so maintain service that the average rate of all customer trouble reports in an exchange is no greater than 6.5 per 100 telephones per month. A customer trouble report rate of more than 8.0 per 100 telephones per month by repair bureau on a continuing basis indicates a need for investigative or corrective action.~~

**Impacts to Service Quality:** Consumer Defined

**Maintain, or Improve Service Quality:** Consumer Defined

**Impacts on Competition, LEC, or Wholesale Service Quality:** Creates Competitive Parity – Stimulates Competitive Market

**Impacts on Telecommunications Consumers:** Consumer Defined

**L. Minn. Rule 7810.6000-PROTECTIVE MEASURES.**

CenturyLink Recommended Modification: Delete

~~Each utility shall exercise reasonable care to reduce the hazards to which its employees, its customers, and the general public may be subjected. The utility shall give reasonable assistance to the commission in the investigation of the cause of accidents and in the determination of suitable means of preventing accidents.~~

**Impacts to Service Quality:** None

**Maintain, or Improve Service Quality:** None

**Impacts on Competition, LEC, or Wholesale Service Quality:** None

**Impacts on Telecommunications Consumers:** None

**M. Minn. Rule 7810.6100-SAFETY PROGRAM.**

CenturyLink Recommendation: Maintain

**STATE OF MINNESOTA  
BEFORE THE PUBLIC UTILITIES COMMISSION**

<b>Beverly Jones Heydinger</b>	<b>Chair</b>
<b>David Boyd</b>	<b>Commissioner</b>
<b>Nancy Lange</b>	<b>Commissioner</b>
<b>Dan Lipschultz</b>	<b>Commissioner</b>
<b>Betsy Wergin</b>	<b>Commissioner</b>

**In the Matter of a Rulemaking to Consider     Docket No. P-999/R-14-413  
Possible Amendments to Minnesota Rules,  
parts 7810.4100 through 7810.6100**

**AFFIDAVIT OF ROBERT BRIGHAM**

**DECEMBER 4, 2014**



**TABLE OF CONTENTS**

I. INTRODUCTION .....1

II. COMPETITION IN THE MINNESOTA CONSUMER MARKET .....3

    A. INTRODUCTION.....3

    B. IMPACT OF COMPETITION .....4

    C. WIRELINE COMPETITION.....14

        1. Cable Telephony ..... 14

        2. Other Competitive Local Exchange Providers (“CLECs”)..... 18

    D. WIRELESS COMPETITION .....20

    E. VOICE OVER INTERNET PROTOCOL (VoIP) COMPETITION .....27

III. CONCLUSION.....32

STATE OF COLORADO     )  
  ) ss.  
COUNTY OF DENVER     )

Robert Brigham, being duly sworn on oath, states as follows:

**I. INTRODUCTION**

1. My name is Robert H. Brigham. My business address is 1801 California Street, 10<sup>th</sup> Floor, Denver, Colorado 80202, and I am currently employed by CenturyLink as a Director of Regulatory Operations. In my current position, I handle regulatory operations for several states and am responsible for the development and presentation of CenturyLink’s advocacy before regulatory bodies concerning pricing, competition and regulatory issues. I have been employed by CenturyLink and its predecessor companies for over 38 years, holding various management positions in Marketing, Costs and Economic Analysis, Finance and Public Policy. I have testified before numerous state commissions in the legacy Qwest region, including Minnesota.

2. The purpose of my affidavit is to respond to the commission’s request for comments regarding possible changes to the existing Minnesota rules, parts 7810.4100 through 7810.6100. Specifically, I will respond to the Commission request that the parties:

Provide evidence of competition, including the level and scope of such competition in relation to different types of customers (large business, small business, residential, etc.) and geography, and the extent to which existing competition supports the rule changes being recommended.<sup>1</sup>

---

<sup>1</sup> Request for Comments, *In the Matter of a Rulemaking to Consider Possible Amendments to Minnesota Rules parts 7810.4100 through 7810.6100*; Revisor’s ID Number R-04269; PUC Docket No. P-999/R-14-413.

My affidavit will demonstrate that the voice telecommunications market is extremely competitive throughout the areas served by the CenturyLink local telephone companies operating in Minnesota.<sup>2</sup> Voice service may be obtained from cable, wireless, VoIP and CLEC providers throughout the state, and, in fact, these competitors now meet the voice communications needs of over 70% of households in the CenturyLink Minnesota serving area. This significant level of competition means that the welfare of Minnesota's consumers is protected without traditional monopoly price and service quality regulation. The vast majority of consumers have chosen to purchase service from providers that either are (1) not subject to service quality regulation by the commission or are (2) arguably subject the commission's service quality rules but are not subject to any commission oversight or enforcement. In this competitive environment, CenturyLink and all providers must provide voice services that meet the service quality requirements considered vital by each consumer in order to retain or gain customers. Thus, all Minnesotans can reap the benefits of competition without artificially imposed service quality mandates.

3. My affidavit provides the empirical data demonstrating the highly competitive nature of the telecommunications market in Minnesota, which reflects the purchasing decisions of consumers. In his affidavit, Dr. Staihr outlines the economic principles the Commission should consider and provides guidelines regarding the proper role for regulation in the market for voice service in Minnesota. The Commission should consider the competitive evidence I provide along with the economic analysis offered by Dr. Staihr as it reforms Minnesota's service quality rules—rules that were established in the bygone monopoly era.

---

<sup>2</sup> The CenturyLink local exchange companies operating in Minnesota are: (1) CenturyLink QC, (2) CenturyTel of Minnesota and (3) Embarq Minnesota, (4) CenturyTel of Northwest Wisconsin and (4) CenturyTel of Chester.

## II. COMPETITION IN THE MINNESOTA CONSUMER MARKET

### A. INTRODUCTION

4. CenturyLink QC competes with a variety of telecommunications service providers in the Minnesota retail voice market. These include: (1) cable companies such as Comcast (the major cable company serving much of CenturyLink's Minnesota territory); (2) national CLECs such as Integra and regional CLECs such as POPP.Com; (3) wireless companies such as AT&T, Verizon, Sprint and T-Mobile; and (4) Voice over Internet Protocol ("VoIP") companies like Vonage and MagicJack. CenturyLink's wireline services also face competition from non-voice services such as email, texting, internet communication and social networking sites. These services provide users with the ability to communicate instantly across a wide variety of platforms and customer equipment.

5. The availability of voice telecommunications services from numerous carriers using a variety of technologies provides Minnesota consumers and businesses with multiple alternatives to satisfy their telecommunications services needs. As described below, CenturyLink's share of the voice market in Minnesota continues to shrink, and the company now serves only a little over one quarter of the households in its serving territory. In this highly competitive market, CenturyLink is no longer a dominant player, and any "market power" it may retain is significantly constrained.<sup>3</sup> While CenturyLink is experiencing intense competition in both the consumer and business markets, the analysis below will focus primarily on the consumer market.

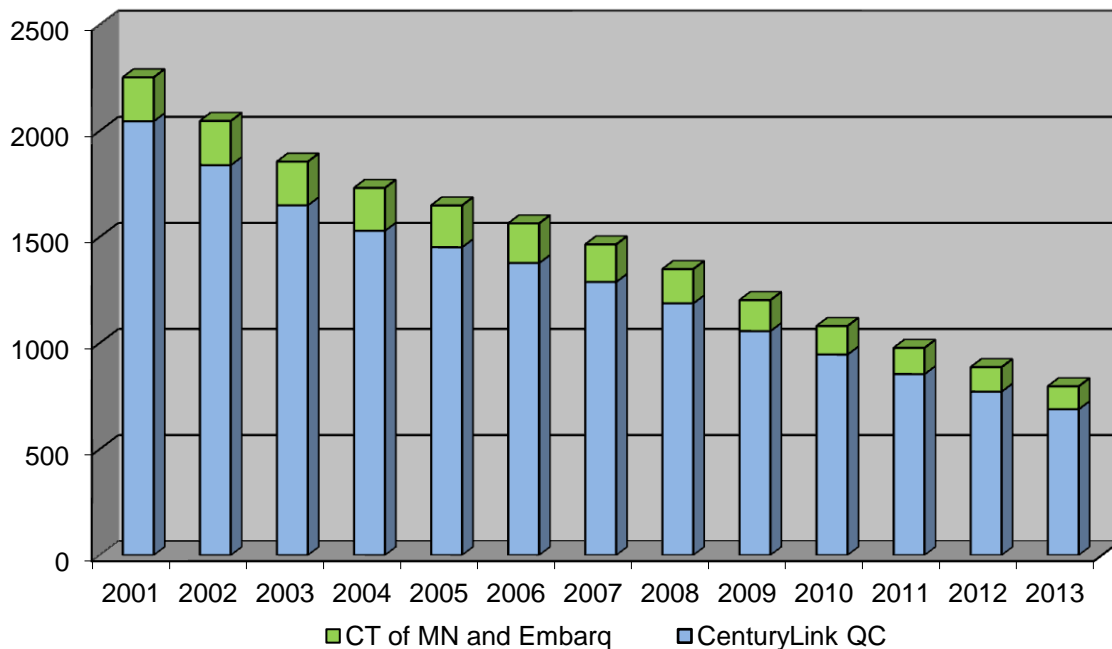
---

<sup>3</sup> See the Affidavit of Dr. Staihr for a further discussion of market power and its relevance in assessing the competitiveness of the Minnesota voice communications marketplace.

## B. IMPACT OF COMPETITION

6. As competition for voice communications services has increased, CenturyLink has experienced a *significant decline in access line volumes*. Between December 2001 and September 2014, total CenturyLink retail access lines<sup>4</sup> in Minnesota declined from 2,251,637 to 737,283, a decline of over 67%.<sup>5</sup> The following chart shows the annual decline of retail switched access lines between December 2001 and December 2013:<sup>6</sup>

**Total CenturyLink Minnesota Access Lines  
(Thousands)**



<sup>4</sup> Includes CenturyLink QC, CenturyTel of Minnesota, Inc. and Embarq Minnesota. Two other subsidiaries, CenturyTel of Northwest Wisconsin and CenturyTel of Chester also offer service in Minnesota. However, since these companies only serve a handful of customers in border areas, they are not included in the access line counts.

<sup>5</sup> Between December 2001 and September 2014, CenturyLink residential lines declined 70% from 1,572,184 to 478,241 and business lines declined 62% from 679,453 to 259,042.

<sup>6</sup> Based on CenturyLink billing data.

7. While CenturyLink has experienced a steady decline in residential (and business) access lines over the past decade, this provides only a partial measure of its loss of market share. U.S. Census data shows that both the number of households and people in Minnesota have increased over this time frame. Between 2002 and 2012, Minnesota population increased from 5,018,935 to 5,347,299, an increase of 6.5%, and Minnesota households increased from 2,132,632 to 2,361,352, an increase of 10.7%.<sup>7</sup> Given the stable telephone penetration rate described below, this demonstrates that there are an increasing number of telephone subscribers in the state, but it is clear that many of these consumers (and businesses) are not using CenturyLink for voice services. Instead, the majority of consumers subscribe to voice telephone service from CenturyLink's competitors, including cable providers, wireless providers, Voice over Internet Protocol ("VoIP") providers and CLECs.

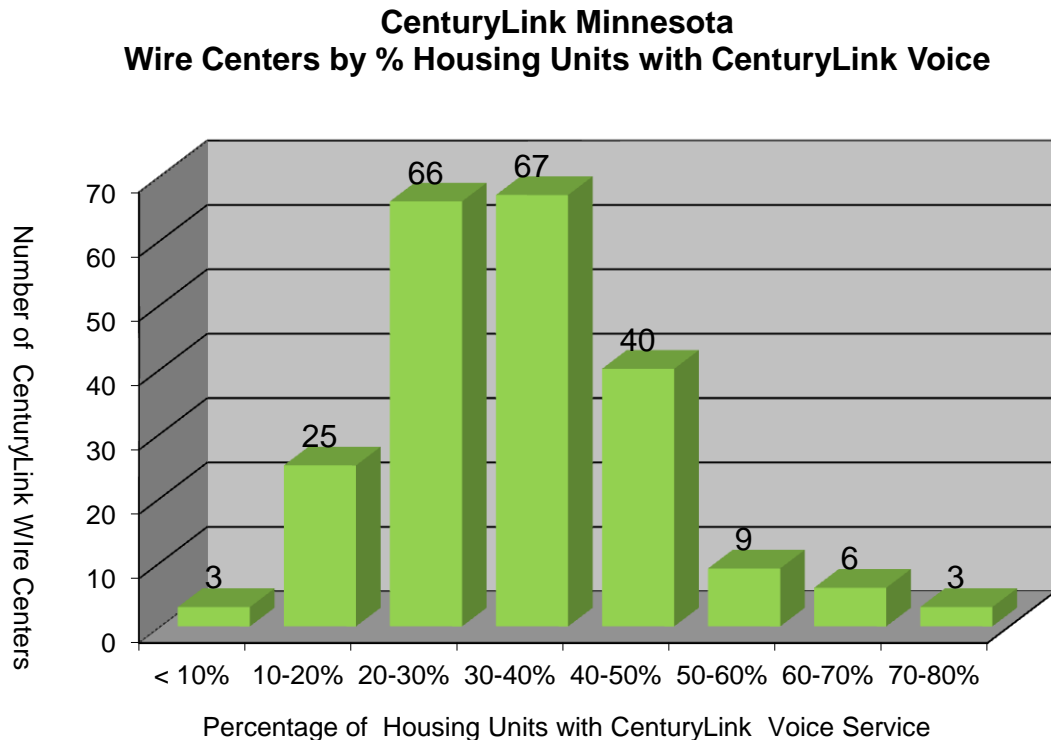
8. A more complete measure of CenturyLink's residential market share losses can be shown by comparing the number of Households that CenturyLink actually serves in its Minnesota serving area to the number of Households it could serve in that same area. Confidential Exhibit RHB-1 shows the total residential "Households"<sup>8</sup> in each CenturyLink wire center, along with the number of Households with active voice service from CenturyLink as of the end of 2013. I have also calculated the "Percentage of Households with Voice" which I will refer to as the CenturyLink "Voice Penetration." In aggregate, CenturyLink is now providing voice service to only 28.1% of the Households in its Minnesota serving area." Thus, *almost three quarters of the Households that CenturyLink could serve in Minnesota purchase no voice services from the company.* These voice penetration figures are not surprising given the level of access line loss CenturyLink has experienced despite a growing voice market. The

---

<sup>7</sup> U.S. Census Bureau; See [http://www.census.gov/popest/data/historical/2000s/vintage\\_2002/housing.html](http://www.census.gov/popest/data/historical/2000s/vintage_2002/housing.html) and <http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>.

<sup>8</sup> Households are Housing Units as defined by the U.S. Census and do not include business locations.

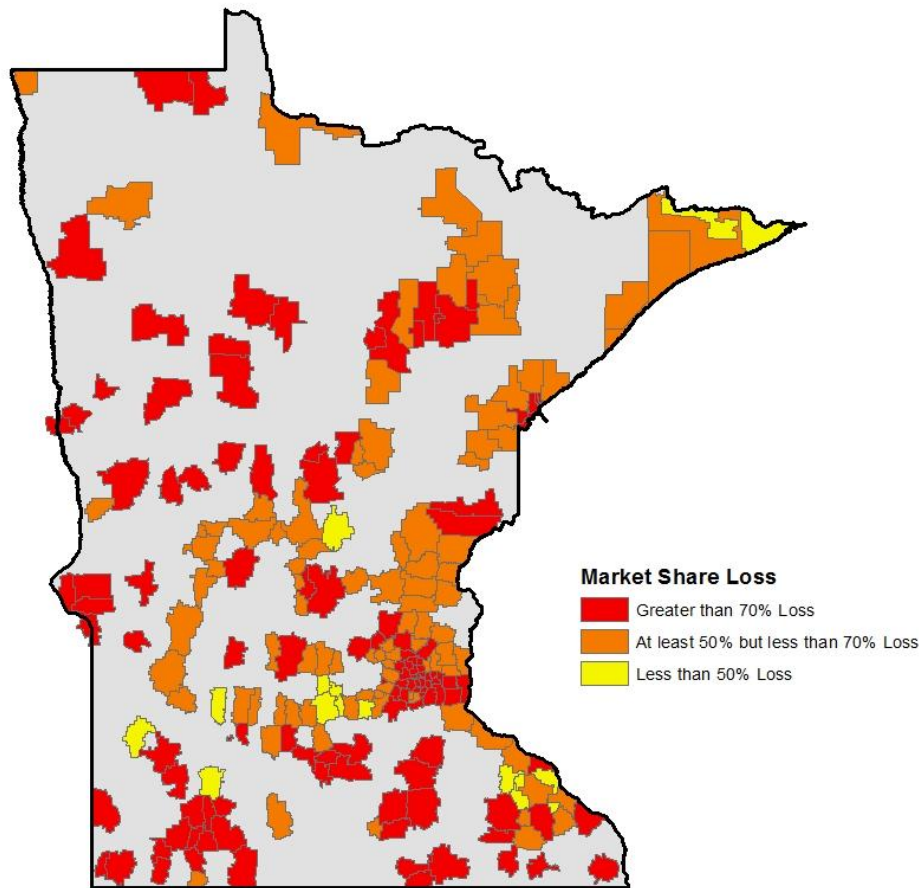
following chart plots the number of CenturyLink wire centers that fall within each of the Household (Housing Unit) penetration level percentages:



9. The chart shows the ubiquity of voice competition in CenturyLink’s Minnesota serving area and demonstrates that there is significant voice competition in each and every CenturyLink wire center. The company’s voice penetration is 70% or less in all but three of the identified wire centers, and is less than 50% in all but 18 of the 219 identified wire centers.<sup>9</sup> Well over half of the wire centers have less than a 40% CenturyLink voice penetration. These data provide clear evidence that there is *significant voice competition in every single CenturyLink wire center in Minnesota.*

<sup>9</sup> As noted in Confidential Exhibit RHB-1, in some cases Housing Units are identified at a level that represents an aggregation of wire centers. Thus, for example, several CenturyTel of Minnesota wire centers in southwest Minnesota are included in the Fulda exchange/wire center. Thus, the 219 wire centers identified here are less than the total number of wire centers in the state.

10. We can also use the Housing Unit data to show the geographic distribution of the market share that has been lost by CenturyLink. In the monopoly era it can be assumed that the CenturyLink companies, as incumbent local exchange providers, served close to 100% of the residential market in their serving areas. Therefore, the Households no longer served by CenturyLink voice service provide an estimate of the voice market share lost by the company. The following map shows the market share losses by wire center for CenturyLink in Minnesota:



11. One might ask: “Could these low CenturyLink voice penetration levels mean that customers are giving up voice service?” The answer is no. FCC subscribership data demonstrate that the portion of Minnesota households without voice service has remained relatively steady

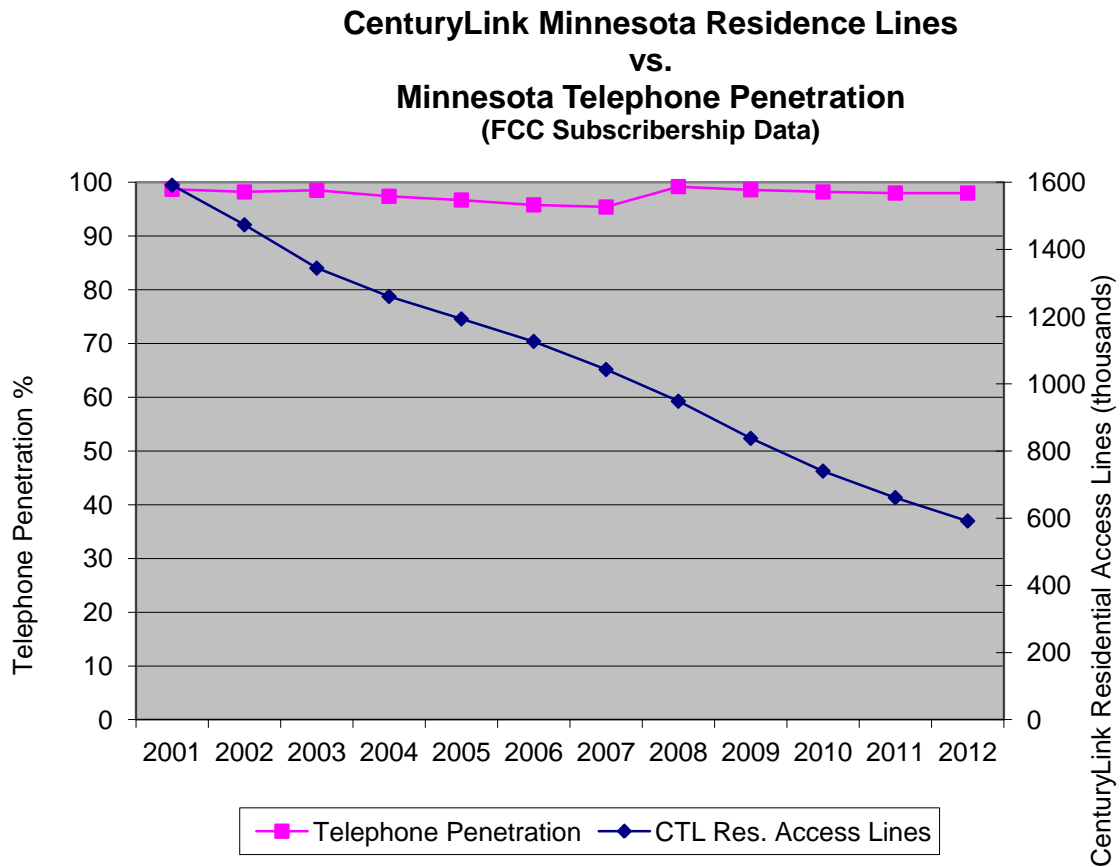


over the last decade even as CenturyLink voice penetration rates have tumbled. When the FCC evaluates telephone subscribership (and develops penetration percentages), it considers all local voice telephone options available to consumers, including wireless, cable and VoIP—because these are real voice telephone options available to consumers.<sup>10</sup> The chart below shows that in the past decade, the Minnesota telephone subscriber penetration rate has remained relatively steady (between 95% and 99%) even as the population increased 6.5% and households increased 10.7%. Stable penetration rates coupled with growing population and households demonstrate that the size of the overall Minnesota market for voice telephone services has grown substantially during the same period that CenturyLink has lost over 60% of its subscriber access lines. Thus, hundreds of thousands of Minnesotans have not gone “phoneless—they have simply left CenturyLink for competitors. The following chart shows the decline in CenturyLink’s Minnesota *residential* access lines along with the FCC’s Minnesota voice penetration rate between 2001 and 2012:<sup>11</sup>

---

<sup>10</sup> The Bureau of the Census develops telephone penetration rates via the American Community Survey (ACS) and the Current Population Survey (CPS). The ACS data is used here. The ACS survey asks the following question: “Does this house, apartment, or mobile home have telephone service from which you can both make and receive calls? Include cell phones.” Universal Service Monitoring Report, CC Docket No. 98-202, 2011 (Prepared by Federal and State Staff for the Federal-State Joint Board on Universal Service in CC Docket No. 96-45), page 3.1.

<sup>11</sup> *Id.*, table 3.6 and Universal Service Monitoring Report, 2013 (Prepared by Federal and State Staff for the Federal-State Joint Board on Universal Service in CC Docket No. 96-45), table 3.6. Note: In the FCC’s report, footnote 3 to Table 3.4 indicates that 2008 subscribership levels may be slightly overstated due to an error in tabulating survey responses. Access lines include all four CenturyLink ILECs in Minnesota.

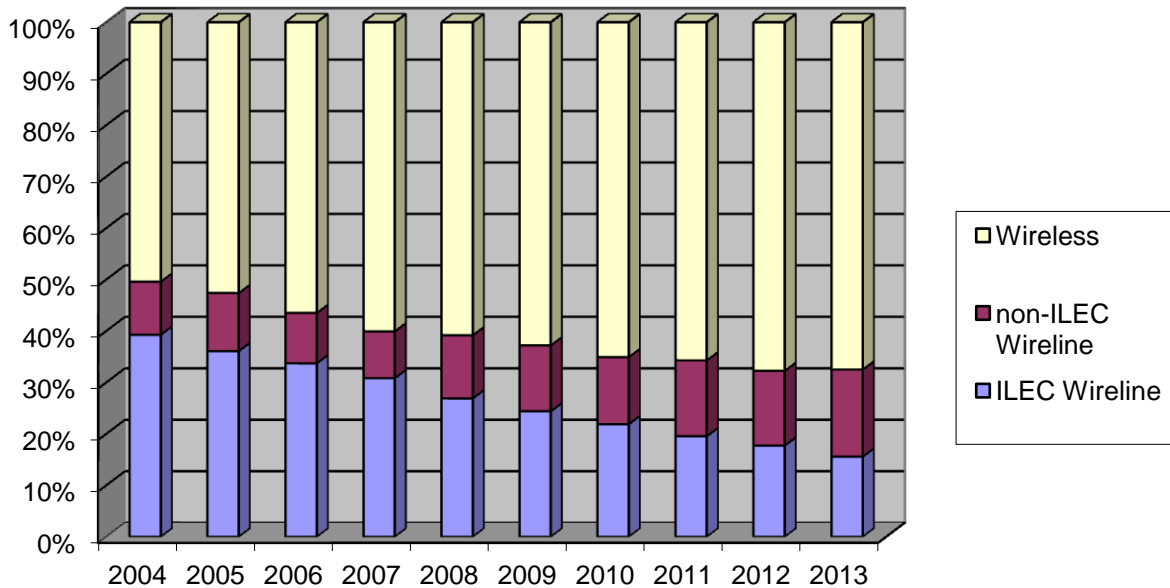


This chart clearly demonstrates that Minnesota consumers leaving CenturyLink are not going without phone service; instead they are purchasing cable telephony, wireless or VoIP-based voice services from another provider as a substitute for CenturyLink services.

12. The Federal Communications Commission (“FCC”) also collects and compiles data demonstrating how competition in Minnesota has impacted CenturyLink’s share of the local voice telephone market in the state. Every six months, the FCC compiles voice connection data reported by ILECs, CLECs and wireless providers, and presents this data in its *Local Competition Report*. This report clearly demonstrates that the voice market share of CenturyLink and other ILECs has declined significantly in Minnesota over the past decade as

customers have chosen to purchase services from cable, wireless, CLEC and VoIP providers. Based on the latest FCC report (using December 2013 data), the ILEC share of Minnesota voice telecommunications connections (including residence and business lines) is now only 15.6% as compared to 16.9% for non-ILECs (including *reporting* VoIP providers) and 67.5% for wireless providers.<sup>12</sup> Thus, while wireless connections dominate the voice market, ***there are now more non-ILEC access lines than ILEC access lines in Minnesota.*** The trends in the migration of customers from CenturyLink and other ILECs to other wireline and wireless providers over the past ten years is demonstrated by the following chart:<sup>13</sup>

**Minnesota Share of Subscriber Connections  
 (FCC Data)**



<sup>12</sup> *Local Telephone Competition: Status as of December 2013*, Industry Analysis and Technology Division, Wireline Competition Bureau, October 2014, tables 9 & 18.

<sup>13</sup> *Id.*, tables 13, 14 & 18. Also see *Local Telephone Competition: Status as of December 31, 2007*, Industry Analysis and Technology Division, Wireline Competition Bureau, September 2008, tables 9, 10 & 14 and *Local Telephone Competition: Status as of December 31, 2010*, Industry Analysis and Technology Division, Wireline Competition Bureau, October 2011, tables 12, 13 & 17.

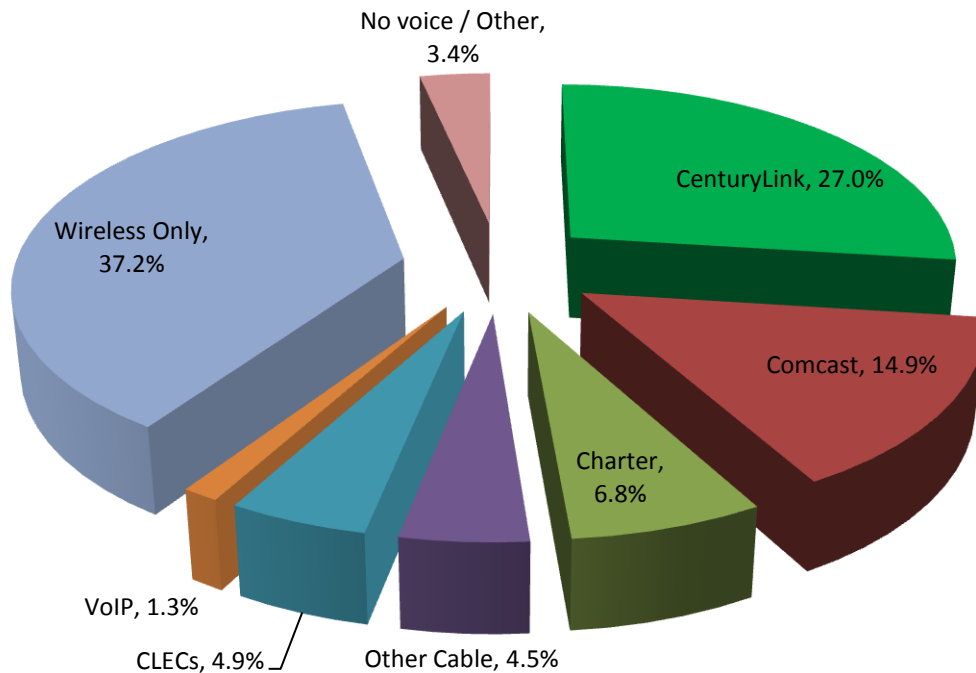
13. While CenturyLink does not have access to confidential access line and other data from its competitors, the company has retained the consulting firm *Centris* to estimate voice market share for CenturyLink and its competitors in the consumer market.<sup>14</sup> *Centris* data is available for CenturyLink's Minnesota ILEC serving territory. The *Centris* data estimate the share of occupied households within the CenturyLink serving areas in the state that purchase voice service from CenturyLink, cable companies, other VoIP providers, CLECs and wireless companies. *Centris* also identifies occupied households without any voice service.

14. The *Centris* data demonstrates that CenturyLink's share of the consumer voice market has been continued to decline over the past several quarters and, as of the third quarter of 2014, CenturyLink provided voice service to *only* 28.0% of the occupied households in its Minnesota serving area. The *Centris* consumer market share data for the third quarter of 2014 is reflected in the following pie chart:

---

<sup>14</sup> *Centris* is a marketing science firm that provides services to CenturyLink and other companies. On its web site, *Centris* states: "Centris is a cutting edge marketing science firm that provides predictive analysis and custom data to the nation's leading communications and entertainment companies." See: <http://centris.com/>.

**Minnesota Consumer Households\*  
(CenturyLink Serving Area)**



\*Based on Centris Data

It is important to note that the “wireless only” share includes only households that do not have wireline voice services at all. If a household has both wireless voice service and CenturyLink wireline voice service, the household is included in the CenturyLink wireline share,<sup>15</sup> not the wireless only share.

15. The CLEC and VoIP shares in the *Centris* consumer share study appear relatively small. The CLEC share is limited because: (1) it does not include the cable providers such as

<sup>15</sup> The CenturyLink QC share estimated in the *Centris* study is higher than the ILEC share estimated with the FCC data primarily because the *Centris* study counts CenturyLink QC households that have both a wireline phone and a wireless phone as a wireline household. The FCC share is based on an analysis that counts each wireline and wireless connection separately, regardless of whether or not the household has both wireline and wireless service. Thus, if a household has a wireline phone and a wireless phone, the FCC analysis would count one wireline connection and one wireless connection, rather than simply one wireline connection. In addition, there may be some differences in the characteristics of CenturyLink and other ILEC areas.

Comcast and Charter, who are stated separately; and (2) many of the traditional CLECs operating in Minnesota are focused on marketing services to business customers rather than the consumer market.<sup>16</sup> The VoIP share is limited because it does not include cable providers such as Comcast and Charter who provide managed VoIP services.<sup>17</sup> Recent trends in the *Centris* consumer study are delineated in Exhibit RHB-2. This exhibit provides CenturyLink share data for several quarters, and also shows the share for cable providers and other competitors. This exhibit demonstrates the trend of declining share for CenturyLink, as consumers choose voice service from other wireline providers such as cable companies. However, the primary attribute of the consumer voice market is the continued wireless substitution that is occurring in Minnesota—now up to 37.2% of occupied households in the state per the *Centris* data.

17. Both the CenturyLink household data and Centris data described above demonstrate that less than one third of the consumer households in CenturyLink's Minnesota serving area continue to purchase CenturyLink voice services today. Instead, a large majority of consumers now purchase voice services from wireless providers, cable providers, VoIP providers and CLECs, who have gained significant market share at the expense of CenturyLink. The Minnesota consumer telecommunications market today is fully competitive, with these alternative providers successfully offering functionally equivalent or substitute services that are readily available to customers. In this competitive environment, as described by Dr. Staihr, CenturyLink lacks any significant market power. Regulation should be modernized to account for this fact.

---

<sup>16</sup> For example, Granite markets only to business customers and Integra is primarily focused on the business market.

<sup>17</sup> Managed VoIP services utilize private networks, and do not traverse the public internet.

## C. WIRELINE COMPETITION

### 1. Cable Telephony

18. Cable companies provide phone service (along with video and high speed internet) throughout CenturyLink's Minnesota serving territory. Comcast and Charter offer digital telephone and broadband service to customers in many parts of the state, especially in the areas served by CenturyLink. Other cable companies operating in Minnesota that provide telephone service in the CenturyLink territory include Mediacom LLC, Midcontinent Communications and Cable One. Confidential Exhibit RHB-3 provides the *Centris* estimates of cable voice presence in each CenturyLink wire center in Minnesota for the third quarter of 2014, along with the count of CenturyLink lines for September 30 2014.<sup>18</sup> This exhibit shows that cable telephony service is available to customers in all but 16 of CenturyLink's over 230 wire centers in Minnesota. These 16 wire centers without known cable competition comprised only 4,977 or 0.7% of CenturyLink's access lines in Minnesota.<sup>19</sup> Thus, cable telephone service is now available in wire centers that serve the vast majority of CenturyLink customers in Minnesota. Exhibit RHB-4 provides a summary of the voice pricing plans offered by cable companies in Minnesota.

19. Cable companies provide voice service over their own coaxial/fiber facilities, and sometimes partner with wholesale providers such as Level 3 to offer a complete array of local telephone services. The voice services provided via cable telephony include local calling, calling features and long distance calling that are functionally equivalent to the services offered by CenturyLink. Cable providers generally use VoIP-based technology, but these are managed services that do not utilize the public internet. Since cable telephony providers utilize their own

---

<sup>18</sup> From CenturyLink's billing systems.

<sup>19</sup> While cable providers serve at least some customers in these communities, each company may not offer services to all of the areas served by CenturyLink in each wire center.

networks and facilities, they do not rely on CenturyLink's wholesale network elements in the provision of their telephone services. Each of the cable companies noted above and listed in Confidential Exhibit RHB-3 offer a broad range of telecommunications services to residential and business customers in Minnesota, as described below. These offerings demonstrate that cable service providers see the provision of voice service as a key ingredient in their strategy to expand their customer bases and improve revenue streams by marketing multiple services in addition to cable television service.

20. Comcast is currently the largest cable company operating in Minnesota and offers digital telephone service to customers in many parts of the state, including the Minneapolis-St. Paul area. Comcast is one of the largest media companies in the world, and is the largest cable company in the United States with over 11 million voice customers.<sup>20</sup> In 2013, Comcast revenues topped \$64 billion from its cable, broadcast television and film entertainment businesses. As shown in Confidential Exhibit RHB-3, Comcast offers "Digital Voice" phone service to customers in 59 of CenturyLink's Minnesota wire centers today, and these wire centers account for 68% of CenturyLink's access lines in the state as of September 30, 2014. In April 2014, as part of its agreement to purchase the assets of Time Warner Cable, Comcast agreed to divest itself of 3.9 million customers pending approval of the Time Warner transaction. According to the plan, 1.4 million Comcast customers would be transferred to Charter Communications, and 2.5 million customers would be assigned to a new entity called "Spinco" that would be owned by Comcast and Charter stockholders, but managed by Charter. After the transaction, Charter would become the second largest cable provider nationally with 5.7 million video customers and management of another 2.5 million customers via "Spinco." The current Comcast facilities in Minnesota would be part of the "Spinco" unit; thus Charter would become

---

<sup>20</sup> Comcast Third Quarter 2014 Earnings Release, see <http://cmcsk.com/releasedetail.cfm?ReleaseID=877721>.



the major cable company in Minnesota.<sup>21</sup> Comcast offers local voice telecommunications service in Minnesota that is virtually indistinguishable from CenturyLink service. As delineated in Exhibit RHB-4, Comcast offers “XFINITY voice Local with More” for \$34.95 per month, including unlimited local calling and 12 popular features. Comcast also offers its “Business Class” telecommunications services to businesses, both large and small.

21. Charter was founded in 1993, became a publicly-traded company in 1999 and has been a Fortune 500 company since 2001. Charter describes itself as follows:

A leading broadband communications company and the fourth-largest cable operator in the United States, Charter today employs approximately 23,000 and provides services to more than 6 million customers in 29 states. Headquartered in Stamford, CT, the company is focused on integrating the highest-quality service with clearly superior entertainment and communications products. Over the years, billions have been invested in the communities Charter serves through infrastructure upgrades to deliver video, high-speed Internet and phone service to homes and businesses.<sup>22</sup>

Charter is a large, well funded competitor to CenturyLink and continues to grow. On July 1, 2013, Charter closed on its purchase of the former Bresnan/Cablevision properties for \$1.62 billion, making Charter the nation’s fourth largest cable operator,<sup>23</sup> As of the third quarter of 2014, Charter served 2.4 million voice customers nationally.<sup>24</sup> Charter today provides telephone service to customers in many portion of Minnesota, including the cities of Duluth, Rochester and St. Cloud. As shown in Confidential Exhibit RHB-3, Charter offers local phone service to

---

<sup>21</sup> Comcast-Charter presentation, April 28, 2014; see <http://files.shareholder.com/downloads/CMCSA/3667247999x0x747845/e572c896-c3f2-496e-9241-0c98c9f18b16/Investor%20Presentation.pdf>.

<sup>22</sup> See: <https://www.charter.com/browse/content/about-charter>, visited 12-1-14.

<sup>23</sup> See: <http://www.cedmagazine.com/news/2013/07/charter-closes-deal-to-buy-former-bresnan-systems-from-cablevision>.

<sup>24</sup> Charter 10Q for 3Q14; see: <http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-SECText&TEXT=aHR0cDovL2FwaS50ZW5rd2l6YXJkLmNvbS9maWxpbnmcueG1sP2lwYWdlPTk4NzE0NDEmRNFNFUT0wJINFUT0wJINRREVtQz1TRUNUSU9OX0VOVElSRSZzdWJzaWQ9NTc%3d>.

customers in 57 of CenturyLink's Minnesota wire centers today, and these wire centers account for 24% of CenturyLink's access lines in the state as of September 30, 2014. However, if the transaction with Comcast described above is completed, Charter will grow significantly larger to become the second largest cable company in the United States, behind only Comcast. If the Comcast-Charter transaction is completed, the new company would provide voice services in 111 CenturyLink wire centers that represent 84% of CenturyLink's access lines in the state. At that point, Charter would serve nearly as many voice customers as CenturyLink—yet its service quality is not regulated in the same manner by the Commission. Charter provides voice services that directly compete with CenturyLink local voice services. As described in Exhibit RHB-4, Charter offers basic local phone service for \$24.99 per month, and provides many features and functionalities that are equivalent to CenturyLink voice services.

22. Mediacom is currently the eighth largest cable company in the U.S. and provides digital cable TV, high speed internet and phone service in 1500 communities across 22 states including Minnesota.<sup>25</sup> Mediacom provides telephone service to customers in many small and medium-sized communities in Minnesota, including Burnsville, Cloquet, Excelsior, Grand Rapids, Hibbing, Shakopee, Virginia and Wayzata. As shown in Confidential Exhibit RHB-3, Mediacom offers local phone service to customers in 76 of CenturyLink's Minnesota wire centers today, and these wire centers account for 23% of CenturyLink's access lines in the state as of September 30, 2014. Mediacom provides voice services that directly compete with CenturyLink local voice services. As described in Exhibit RHB-4, Mediacom offers basic local phone service for \$29.99 per month with unlimited long distance and several calling features. Current Mediacom cable customers can add voice service for \$9.99 per month for 12 months.

---

<sup>25</sup> See: <https://mediacomcable.com/site/about.html>, visited 12-1-14.

## 2. Other Competitive Local Exchange Providers (“CLECs”)

23. CenturyLink believes there are more than 60 unaffiliated CLECs *actively* competing with CenturyLink for customers in Minnesota, including national carriers such as Integra, AT&T, Verizon, Windstream (formerly McLeod & PAETEC), Granite Communications, TDS Metrocom and regional companies such as POPP.com. In many cases CLECs provide service using their own facilities and in other cases they provide service by leasing CenturyLink QC facilities (e.g., resale, CenturyLink Local Services Platform (“CLSP”) or Unbundled Loops (UNE-L). Many of these CLECs focus primarily on serving business customers. However, there are several CLECs that serve residential customers in CenturyLink’s Minnesota territory, including AT&T, Nebraska Technology and Telecommunications (NT&T), Liberty Bell Telecom and Velocity Telephone. While Integra focuses on business customers, it does serve residential customers in Minnesota. The residential offerings for many of these CLECs are detailed in Exhibit RHB-4.

24. There are also many facilities-based CLECs (often associated with small ILECs) that have expanded into CenturyLink serving areas in Minnesota, providing voice, broadband and in some cases cable TV services using their own facilities. For example, Arvig began as East Ottertail Telephone and has grown to be “one of the largest independent telecommunications providers in the nation,”<sup>26</sup> serving many communities in north central Minnesota. It states that it “now provides telephone to nearly 66,000 customers, television to more than 24,000 customers and Internet to more than 36,300 customers, and has a service area that covers more than 9,000 square miles.”<sup>27</sup> Arvig serves customers in several CenturyLink wire centers, including Battle Lake, Carlos, Cass Lake, Detroit Lakes, Hawley, Henning, Mahnomon, Park Rapids, Sauk Centre, Staples and Wadena.<sup>28</sup> As shown in Exhibit RHB-4,

<sup>26</sup> See: <http://arvig.com/about/>, visited 12-2-14.

<sup>27</sup> See: <http://arvig.com/about/>, visited 12-2-14.

<sup>28</sup> See: <http://arvig.com/about/arvig-store-locations/>, visited 12-2-14.

Arvig offers basic local phone service for \$15.95 per month. Consolidated Telecommunications Company (“CTC”) began as Crow Wing Cooperative Telephone Company and now serves several communities in the Brainerd area, including customers in the CenturyLink Brainerd and Nisswa wire centers.<sup>29</sup> As shown in Exhibit RHB-4, CTC offers basic local phone service for \$14.95 per month. Federated Telephone is a Cooperative company that has expanded its reach over the years to include the CenturyLink Morris wire center, and as noted in Exhibit RHB-4, the company offers basic local telephone service for \$15.00 per month.<sup>30</sup> Based in Winona, Hiawatha Broadband (“HBC”) provides phone service to 21 communities in southeastern Minnesota, including the CenturyLink wire centers of Altura, Elgin, Eyota, Kellogg, Lake City, Lewiston, Plainview, Red Wing, Rollingstone, St. Charles, Wabasha and Winona.<sup>31</sup> As shown in Exhibit RHB-4, Hiawatha Broadband offers basic local exchange service for \$13.70 per month. Paul Bunyan Communications is a cooperative telephone company that provides voice, broadband and TV services to customers in an area covering over 4,500 square miles of Northern Minnesota.<sup>32</sup> The company provides service in the Bemidji, Grand Rapids and Park Rapids wire centers<sup>33</sup> and provides basic local exchange services for \$16.00 per month as listed in Exhibit RHB-4.

---

<sup>29</sup> See: [http://www.connectctc.com/About\\_CTC/Coverage\\_Area.html](http://www.connectctc.com/About_CTC/Coverage_Area.html), visited 12-2-14.

<sup>30</sup> See: <http://hometownsolutions.net/Communities.htm>, visited 12-2-14.

<sup>31</sup> See: <http://www.hbci.com/about-us/>, visited 12-2-14.

<sup>32</sup> See: <http://www.paulbunyan.net/cooperative/history.html>, visited 12-2-14.

<sup>33</sup> See: <http://www.paulbunyan.net/cooperative/pdf/District-Map.pdf>, visited 12-2-14.

#### **D. WIRELESS COMPETITION**

25. According to the FCC's latest *Local Competition Report*, as of December, 2013 there were 5,286,000 wireless subscribers in Minnesota, an increase of 145% from only 2,154,000 in December 2001.<sup>34</sup> At the same time, as of December 2013, there were only 2,547,000 access lines served by wireline carriers (both ILEC and non-ILEC) in Minnesota.<sup>35</sup> The FCC data shows that the wireless voice connection market has grown significantly over this timeframe, as described earlier in my affidavit.<sup>36</sup> As the number of wireless subscribers has increased dramatically, CenturyLink access lines in Minnesota have dropped almost 65% from 2.252 million in December 2001 to 795,577 in December 2013. The following graph shows the relationship of wireless connections, total wireline connections and CenturyLink QC access lines in Minnesota from December 2003 through December 2013:

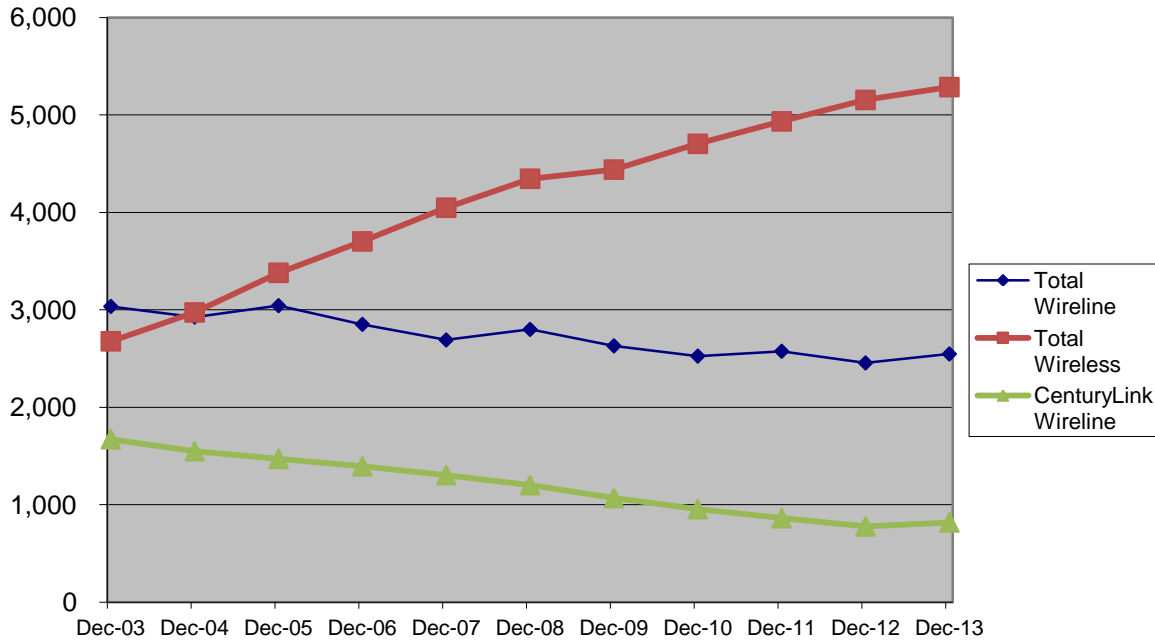
---

<sup>34</sup> *Local Telephone Competition: Status as of December 2013*, Industry Analysis and Technology Division, Wireline Competition Bureau, October 2014, table 18. See also previous *Local Competition Reports*.

<sup>35</sup> *Id.*, Tables 9 & 18.

<sup>36</sup> The FCC has also estimated that 70% of 911 calls are made from wireless phones. See: <http://www.fcc.gov/guides/wireless-911-services>.

**Minnesota Total Wireline vs. Wireless Lines\*  
 (thousands)**



Based on FCC and CenturyLink internal data

26. Nearly all Minnesota consumers, except those in extremely remote areas, have wireless options. In fact, the vast majority of CenturyLink customers have multiple wireless options. Exhibit RHB-5 provides maps showing the areas served by CenturyLink, along with the areas served by several major wireless carriers-- AT&T, Verizon, Sprint and T-Mobile.<sup>37</sup> It may be observed that there are very few areas within CenturyLink wire center boundaries where there is no wireless coverage, and this occurs only in the most sparsely populated areas. Thus, very few Minnesotans actually live in the areas without wireless service available from multiple carriers.

<sup>37</sup> Wireless coverage based on maps provided on carrier web sites.

27. In the past, legacy Qwest provided Qwest-branded wireless service in Minnesota through a resale agreement with Sprint, utilizing the Sprint wireless network. This agreement expired in 2009 and thereafter Qwest signed an agreement with Verizon to offer Verizon Wireless service to its customers, and bill the service on the customer's Qwest bill. This arrangement remains in place today with the post-merger CenturyLink entity. The service is branded as Verizon Wireless, and is designed to provide CenturyLink wireline customers with a wireless option as part of a CenturyLink service bundle.<sup>38</sup> When a customer disconnects his or her CenturyLink service and becomes a wireless-only customer, CenturyLink will lose the customer, even if he or she subscribes to Verizon Wireless.

28. Wireless carriers today feature plans that include voice, text and data, but nearly all providers still offer voice-only plans. These plans, which are outlined in Exhibit RHB-4, are competitive with CenturyLink local exchange service, and are priced as low as \$20 per month. In fact, wireless providers advertise wireless phone services that are designed as a direct replacement for a wireline phone. With these plans, a customer hooks up the household inside wiring to the wireless network, and can then make calls using the wireline phones in the home. For example, Sprint offers its "Phone Connect Plan" for \$19.99 per month with four calling features and unlimited anytime calling.<sup>39</sup> This service is advertised as follows: "Replace your current landline or digital phone service with unlimited Sprint phone service at your home or office."<sup>40</sup> Verizon offers "Verizon Wireless Home Phone" which it sells for \$20 per month, plus \$99.99 for an antenna device (free with a two year contract). Verizon's web site advertises the

---

<sup>38</sup> This arrangement is similar to the agreement CenturyLink has in place to offer DirecTV service as part of a bundle of services.

<sup>39</sup> See:

[http://shop.sprint.com/mysprint/shop/plan/plan\\_wall.jsp?tabId=plnTab4410001&flow=AAL&planFamilyType](http://shop.sprint.com/mysprint/shop/plan/plan_wall.jsp?tabId=plnTab4410001&flow=AAL&planFamilyType)

<sup>40</sup> See:

[http://shop.sprint.com/mysprint/shop/plan\\_details.jsp?tabId=plnTab4410001&planCatId=pln590002cat&planFamilyType=&flow=AAL&question\\_box=phone connect plan&id16=phone connect plan](http://shop.sprint.com/mysprint/shop/plan_details.jsp?tabId=plnTab4410001&planCatId=pln590002cat&planFamilyType=&flow=AAL&question_box=phone connect plan&id16=phone connect plan), visited 11-24-14.

service as follows: “Rethink your Home Phone Service. Wireless Home Phone offers you a reliable, portable, low-cost alternative to traditional home phone service using the Verizon Wireless network all while keeping your same number and home phone.”<sup>41</sup>

29. The decline in CenturyLink landlines, coupled with the dramatic increase in wireless connections, demonstrates that an ever-increasing number of Minnesota customers view wireless phones as a functionally equivalent substitute for wireline service. Wireless phones are replacing wireline phones, and a significant number of voice customers have already “cut the cord,” relying solely on wireless service to meet their telecommunications needs. The data show that this trend is accelerating. According to the latest survey conducted by the National Center for Health Statistics (“NCHS”), in the second half of 2013, 41.0% of U.S. households did not have a traditional landline telephone, but did have at least one wireless telephone.<sup>42</sup>

30. While 41.0% of households have already “cut the cord,” another 16.1% of households are “wireless mostly” and use their wireless phone for nearly all calling. In total, these wireless only and “wireless mostly” households make up over half (56.1%) of households. The chart below depicts how wireless-only households in the U.S. have increased over time, according to the NCHS study:

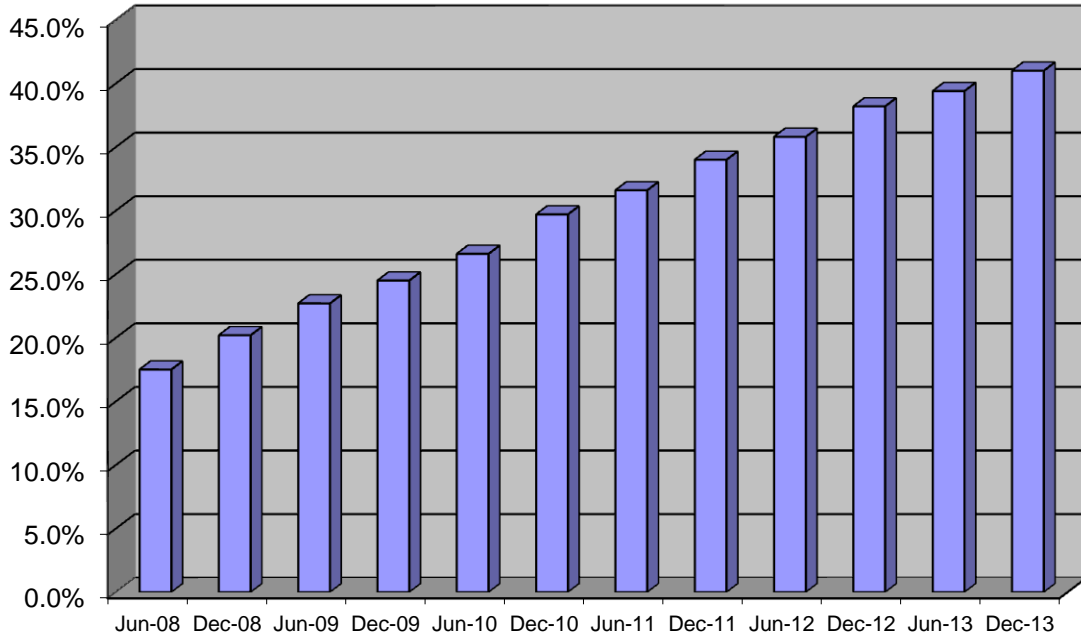
---

<sup>41</sup> See: <http://www.verizonwireless.com/home-office-solutions/wireless-home-phone/>, visited 11-24-14.

<sup>42</sup> *Centers for Disease Control and Prevention, National Center for Health Statistics, Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July-December, 2013*, released July 2014, page 1. In the NCHS study, any households that has removed an additional landline telephone line in favor of wireless service but still retains at least one landline telephone line in the household is not considered “wireless only.”



**Percentage of Wireless-Only Customers\*  
(Total U.S.)**

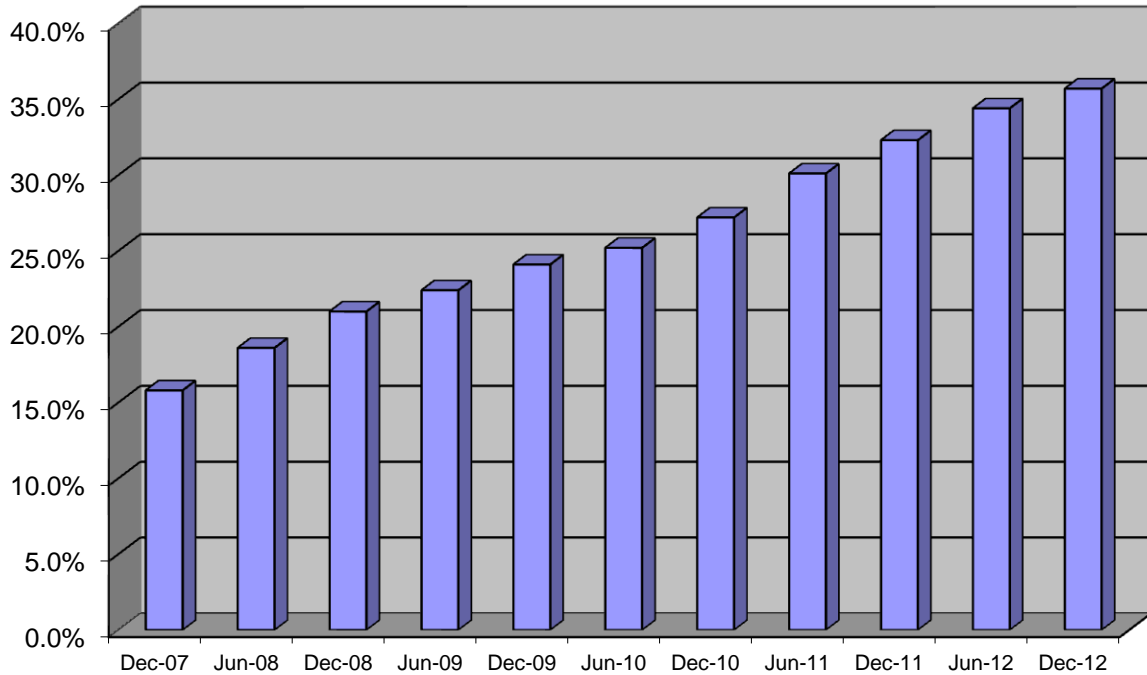


\*Based on Center for Disease Control (CDC ) data - NCHS

31. The NCHS also conducts periodic state level surveys to determine the percentage of wireless-only households by state, and state-specific estimates are available for the years 2007 through 2012. The results for Minnesota are depicted in the following chart:<sup>43</sup>

<sup>43</sup> Centers for Disease Control and Prevention, National Center for Health Statistics, Wireless Substitution: State-level Estimates From the National Health Interview Survey, 2012, released December 18, 2013, Table 1; Centers for Disease Control and Prevention, National Center for Health Statistics, Wireless Substitution: State-level Estimates From the National Health Interview Survey, January 2007–June 2010, released April 20, 2011, Table 1 and Centers for Disease Control and Prevention, National Center for Health Statistics, Wireless Substitution: State-level Estimates From the National Health Interview Survey, 2010–2011, released October 12, 2012, Table 1.

### Percentage of Wireless-Only Customers\* (Minnesota)



\*Based on Center for Disease Control (CDC ) data - NCHS

These data show that the level of wireless substitution is slightly lower in Minnesota than it is in the nation as a whole: The percentage of wireless only Minnesota households was 35.7% for the second half of 2012 as compared with 38.2% nationally for that timeframe. However, the trend of increasing “cord cutting” is similar in Minnesota to the nation as a whole.

32. In areas where wireless alternatives exist—which includes nearly all of CenturyLink’s Minnesota service territory—it is clearly viewed as a viable local service alternative by a large number of customers. This fact is made clear by the growing number of households that have either abandoned CenturyLink service (“cut the cord”) or never purchased voice service from CenturyLink in the first place, as well as the “wireless mostly” customers who are considering “cutting the cord.” As described in the affidavit of Dr. Staihr, the existence of wireless alternatives (as well as cable and other wireline options) creates a competitive market that self-regulates CenturyLink’s pricing and service quality based on the demands and

preferences of consumers. If a customer believes the level of CenturyLink service quality does not represent a good value, he or she can move to wireless or another wireline option. Thus, wireless service represents an effective substitute for wireline service that allows the market to regulate prices and service quality.

33. “Wireless mostly” households are particularly likely to “cut the cord” in the future because the customers have both a wireline phone and a wireless phone, but make little use of their wireline phone. Minimal wireline usage causes customers to question the value of maintaining and paying for both a wireless and wireline phone, especially if wireline rates increase. Ultimately, a “wireless mostly” customer may decide to “cut the cord;” a scenario that occurs regularly as the NCHS data shows. “Wireless mostly” customers’ proclivity to “cut the cord” constrains a wireline company like CenturyLink, from raising rates above the appropriate market level or letting service quality deteriorate to levels that the customer feels are unacceptable.

34. In various regulatory forums, some parties have argued that wireless service should not be considered to be a substitute for wireline service because *all* customers may not view it as a substitute. There is no doubt that some customers may not yet view wireless service to be a substitute for wireline service, and some of these customers may not want to give up their wireline phone under any circumstances. However, as long as there are enough customers willing to “cut the cord” (often called customers “at the margin”), the risk of losing such customers and the desire to attract current “wireless-only” customers constrains CenturyLink’s prices and service quality. As further discussed in the Affidavit of Dr. Staihr, price, features, quality and other factors do not need to be the same in order for consumers to find products substitutable. It is the perception of consumers that is the key and the evidence is undeniable that large numbers of customers have found and continue to find wireless service substitutable for CenturyLink’s voice services. While wireless service may not represent a substitute for *all*

wireline customers, it is a *functionally equivalent substitute* for many, if not most, customers—a fact proven by the large number of households that have already “cut the cord.”

35. The bottom line is that wireless does not have to be identical to wireline service, nor does it have to be a substitute for all customers, in order for it to constrain CenturyLink’s pricing, and assure that CenturyLink provides the level of service quality that customers expect and demand. Because wireless providers today make functionally equivalent or substitute services readily available at competitive rates, terms and conditions, CenturyLink’s market power is limited, as described by Dr. Staihr.

#### **E. VOICE OVER INTERNET PROTOCOL (VOIP) COMPETITION**

36. It is useful to describe VoIP services as either “managed” or “over-the-top.” Generally, cable companies offer “managed” VoIP-based services that are non-portable and that carry traffic over private managed networks, rather than the internet. Many other companies such as Vonage and MagicJack offer “over-the-top” VoIP services, which rely on any third-party broadband connection, and transmit calls over the public internet. These companies often offer “portable” VoIP services that can be used over any high speed internet connection. Since cable VoIP services were addressed above, I will describe “over-the-top” VoIP services in this section.

37. From a customer perspective, VoIP service functions in a manner similar to standard circuit switched telephony, and allows a customer to utilize a standard telephone set to originate and receive telephone calls using the same dialing patterns that are used for standard wireline telephone service.<sup>44</sup> To utilize VoIP services, a customer must have a high speed connection, such as a fiber connection, Digital Subscriber Line (“DSL”), a high-speed wireless

---

<sup>44</sup> VoIP setup is simple—a standard telephone is simply plugged into a VoIP adaptor (provided by the VoIP carrier), which is connected to a broadband internet modem. From the standpoint of the customer, VoIP works just like traditional phone service, except that it provides additional features and functionality.

connection or a cable modem. The FCC describes VoIP as follows: Interconnected VoIP service “(1) [e]nables real-time, two-way voice communications; (2) [r]equires a broadband connection from the user’s location; (3) [r]equires IP-compatible customer premises equipment (CPE); and (4) [p]ermits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.”<sup>45</sup>

38. VoIP telephone service is a rapidly growing communications technology that clearly represents a competitive alternative to traditional landline-based telephone services in Minnesota. In fact, in a 2009 Order regarding IP-enabled services, the FCC recognized that VoIP-based services are increasingly replacing traditional wireline services:

Consumers increasingly use interconnected VoIP service as a replacement for traditional voice service, and as interconnected VoIP service improves and proliferates, consumers’ expectations for this type of service trend toward their expectations for other telephone services.<sup>46</sup>

The FCC has also noted in its NPRM regarding Intercarrier Compensation and Universal Service, that “the emergence of VoIP provides another alternative to traditional wireline phone service”<sup>47</sup> and that “consumer demand for VoIP services continues to increase.”<sup>48</sup> More recently, in its Report and Order and Further Notice of Proposed Rulemaking in the same docket, the FCC found that “Interconnected VoIP services, among other things, allow customers to make

---

<sup>45</sup> *In the Matter of Connect America Fund A National Broadband Plan for Our Future Establishing Just and Reasonable Rates for Local Exchange Carriers High-Cost Universal Service Support Developing an Unified Intercarrier Compensation Regime Federal-State Joint Board on Universal Service Lifeline and Link-Up*, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 07-135, WC Docket No. 05-337, CC Docket No. 01-92, CC Docket No. 96-45, WC Docket No. 03-109, Notice of proposed rulemaking and further notice of proposed Rulemaking, FCC 11-13, released February 9, 2011 (“*ICC/USF NPRM*”), footnote 923.

<sup>46</sup> *Report and Order*, In the Matter of IP-Enabled Services, Federal Communications Commission, WC Docket No. 04-36, Released: May 13, 2009, ¶ 2.

<sup>47</sup> *ICC/USF NPRM*, ¶ 503.

<sup>48</sup> *Id.* ¶ 610.

real-time voice calls to, and receive calls from, the PSTN, and increasingly appear to be viewed by consumers as substitutes for traditional voice telephone services.”<sup>49</sup> In addition, as described earlier, the FCC includes VoIP-based telephone service when it is developing telephone subscribership data, and the FCC now includes VoIP-based services in its *Local Competition Report*, where it includes the number of reported “End-User Switched Access Lines and VoIP Subscriptions.”<sup>50</sup> As noted in the most recent *Local Competition Report*, non-ILEC VoIP subscriptions in Minnesota increased to 850,000 as of December 2013.<sup>51</sup> VoIP-based telephone offerings represent a significant and increasing form of competition for CenturyLink’s local exchange service.

39. While it is very difficult to obtain accurate subscribership information regarding VoIP services in Minnesota,<sup>52</sup> VoIP is clearly a growing communications technology that represents a competitive alternative to traditional landline-based telephone services. “Over the Top” VoIP-based telephone service, which is typically offered as a package that includes unlimited local and long distance service plus an array of calling features, is now readily available from a broad range of providers to *any customer in Minnesota that has high-speed broadband internet access*. And it is clear that broadband availability and subscribership will

---

<sup>49</sup> *In the Matter of Connect America Fund, A National Broadband Plan for Our Future, Establishing Just and Reasonable Rates for Local Exchange Carriers, High-Cost Universal Service Support, Developing an Unified Intercarrier Compensation Regime, Federal-State Joint Board on Universal Service, Lifeline and Link-Up, Universal Service Reform – Mobility Fund*, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 07-135, WC Docket No. 05-337, CC Docket No. 01-92, CC Docket No. 96-45, WC Docket No. 03-109, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161, Released November 18, 2011, (“ICC/USF Order”), ¶63.

<sup>50</sup> It is not clear that all over-the-top VoIP providers report VoIP lines to the FCC.

<sup>51</sup> *Local Telephone Competition: Status as of December 31, 2013*; Industry Analysis and Technology Division, Wireline Competition Bureau, October 2014, table 9. These quantities include both managed and over-the-top VoIP.

<sup>52</sup> As described earlier, *Centris* has estimated the percentage of households with over-the-top VoIP service. While currently a only a small percentage of households rely exclusively on over-the-top VoIP, this percentage is likely to grow. In addition, like wireless service, many customers may have VoIP service in addition to landline service. In the *Centris* data, these customers are included in the CenturyLink counts.

increase over time, especially given the recent initiative by the FCC to provide universal service funding for broadband. In fact, the FCC acknowledged how increases in broadband availability will stimulate VoIP usage: “The deployment of broadband infrastructure to all Americans will in turn make services such as interconnected VoIP service accessible to more Americans.”<sup>53</sup>

40. Broadband access has been increasing rapidly in Minnesota. According to the FCC’s latest Internet Access report: “*Internet Access Services: Status as of December 31, 2013*”, ADSL broadband connections in Minnesota have grown from 276,000 in December 2005 to 631,000 in December 2013—an increase of over 125 percent, and cable modem broadband connections in Minnesota have grown from 494,000 to 914,000 between December 2005 and December 2013—an increase of over 85 percent.<sup>54</sup> As of December 31, 2013, according to the FCC, there were 1,631,000 total high speed internet connections in the state with at least 200 kbps up or downstream (excluding mobile wireless), and 1,280,000 connections with at least 3 mbps downstream and 768 kbps upstream (excluding mobile wireless).<sup>55</sup> Thus, the number of wireline, fiber and fixed wireless broadband connections that can accommodate VoIP in Minnesota far exceeds the 795,577 total CenturyLink basic exchange access lines that were in service in Minnesota on December 31, 2013. Competitive broadband services are now widely available from multiple providers in Minnesota, and these services have been embraced by a rapidly increasing number of customers. Each of these broadband connections represents an existing or potential VoIP subscriber.

---

<sup>53</sup> *ICC/USF Order*, ¶67.

<sup>54</sup> *Internet Access Services: Status as of December 31, 2013*, FCC Industry Analysis and Technology Division, Wireline Competition Bureau, October 2014, Tables 19 & 20, and *High Speed Services for Internet Access: Status as of December 31, 2009*, FCC Industry Analysis and Technology Division, Wireline Competition Bureau, December 2010, Tables 21 & 22. Based on at least 200 kbps in at least one direction.

<sup>55</sup> *Id.*, Table 16 & 17.

41. CenturyLink DSL service subscribers have the option of utilizing their DSL connection to subscribe to VoIP service from another provider, in lieu of traditional CenturyLink local exchange services. Residential and business customers within CenturyLink's service territory in Minnesota may subscribe to CenturyLink DSL service and may order VoIP telephone service from a wide range of non-CenturyLink VoIP providers as a replacement for CenturyLink basic exchange voice service.

42. Numerous companies offer VoIP services in Minnesota, including Vonage, Lingo, 8x8, MagicJack, VoIP.com, viatalk, Intalk, PhonePower, CallCentric, VoIPYourLife and many others. There are numerous pricing plans and services available for residential and business customers. Vonage offers "Vonage World" service for \$27.99 per month (\$9.99 for the first three months), which includes unlimited domestic usage and unlimited calls to 60 countries, Voicemail, Caller ID, Call Waiting, Anonymous Call Block, 3-Way-Calling and many other standard features. Vonage also offers its "U.S. & Canada 400" plan for \$12.99 per month that includes 400 minutes of outbound local and long distance home phone service across U.S., Canada and Puerto Rico, with 5 cents for each additional minute, along with the same features listed above.<sup>56</sup> Lingo offers numerous plans, including the "Lingo Unlimited" plan that provides many calling features and unlimited calling in the U.S. and Canada for \$14.95 per month with a one year contract or \$19.95 per month with no contract. Lingo also offers international plans such as the "Lingo World" plan with unlimited calls to 50 countries for \$19.95 per month with a one year contract or \$23.95 per month with no contract.<sup>57</sup> Other providers offer similar plans, and many carriers offer additional business-related features. 42. In sum, VoIP providers offer very attractively priced phone services today. These are functionally equivalent or substitute services readily available at competitive rates, terms and conditions. As with cable, CLEC and

---

<sup>56</sup> See: <http://www.vonage.com>, visited 11-25-14.

<sup>57</sup> See: <http://www.lingo.com/home-phone-nationwide-plans.shtml>, visited 11-25-14.



wireless competition, competition from VoIP providers serves to limit CenturyLink's market power. There are dozens of VoIP providers offering voice service to Minnesotans.

### III. CONCLUSION

43. This affidavit has described the telecommunications market in Minnesota, and demonstrated that the market for voice services is extremely competitive throughout the state. Today, less than one third of voice customers subscribed to service from CenturyLink—a far cry from the near 100% market share the company enjoyed in the monopoly era of previous decades when the service quality rules were developed. In his affidavit, Dr. Staihr explains why the Commission should adjust regulation to account for this vastly changed marketplace. He notes that in a competitive market retail regulation is both 1) *unnecessary* and 2) *undesirable*. As CenturyLink states in its comments, the Commission should eliminate or update its monopoly-era service quality rules in recognition of the vast changes that have taken place in the voice telecommunications market.

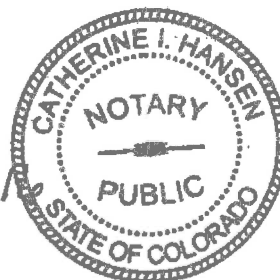
This concludes my affidavit.

  
Robert Brigham

STATE OF COLORADO,  
COUNTY OF DENVER  
Subscribed and sworn to before me  
this 4th day of December, 2014.

  
Notary Public

my commission expires: 7/25/2018



**TRADE SECRET/PRIVILEGED INFORMATION  
CLASSIFICATION RATIONALE**

**State:** Minnesota

**Description/Title of Information:** In the Matter of a Rulemaking to Consider Possible Amendments to Minnesota Rules, part 7810.4100 through 7810.6100  
**Docket No. P-999/R-14-413**

**Rationale:** Exhibits RHB-1 and RHB-3 to the Affidavit of Robert Brigham contain information that is considered Trade Secret because the information is not generally known to, and not being readily ascertainable by proper means by, other persons who can obtain value from its disclosure or use. For this reason, Exhibits RHB-1 and RHB-3 to the Affidavit of Robert Brigham should be protected from public disclosure.

# **Exhibit RHB-1**

**Has Been Redacted in  
Its Entirety**

**Minnesota Consumer Voice Market Share<sup>1</sup>**  
**(Centris Data)<sup>2</sup>**

	2Q13	3Q13	4Q13	1Q14	2Q14	3Q14
Voice Lines - CenturyLink	31.8%	30.8%	29.8%	28.9%	28.0%	27.0%
Total Cable Telephony	24.7%	25.1%	25.5%	25.9%	26.2%	26.2%
Comcast	13.9%	14.2%	14.4%	14.6%	14.9%	14.9%
Charter	6.4%	6.5%	6.7%	6.8%	6.8%	6.8%
Other Cable	4.4%	4.4%	4.4%	4.6%	4.6%	4.5%
CLECs	4.8%	4.8%	4.9%	4.9%	4.9%	4.9%
VoIP	1.3%	1.3%	1.3%	1.3%	1.2%	1.3%
Wireless Substitution	34.0%	34.6%	35.2%	35.6%	36.2%	37.2%
No Voice/Other	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
Total	100%	100%	100%	100%	100%	100%

<sup>1</sup> Market Share is based on share of occupied households.

<sup>2</sup> Centris data is developed from survey data, third party data bases and market models for CenturyLink QC's market panning and competitor intelligence purposes. Although deemed to be representative of market conditions, Centris makes no representations or warranties to third parties regarding the accuracy of this data.

# **Exhibit RHB-3**

**Has Been Redacted in  
Its Entirety**

**Websites current as of November 17, 2014**

Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
Arvig	Wireline	Battle Lake, MN  Basic Phone - \$15.95 (excluding taxes)  <a href="#">Basic Phone Rates</a>	You can mix and match any way you like and save up to 20% - in this case, you would save 10%: 5Mb Internet \$32.95 Basic Phone \$15.95 Caller ID \$5.95 Voicemail \$4.95 Phone to go \$4.95 Long Distance \$.09/minute  <a href="#">Package Plans</a>
Charter	Wireline/Cable	Minnesota Basic Service - \$24.99 (flat rate); n/a (measured rate) TAP state credit - \$3.50 Anonymous call rejection - \$1.50/month Call forward: \$2.75/month Caller ID- \$6.75/month Charter Basic Long Distance Plans: For Basic Service Subscribers who choose the Company as their long distance provider: Charter Basic Long Distance - \$0.07/min. Basic Long Distance (Buy up plan) - \$2.50/month The per minute of use rates apply to 1+ calls only (i.e. direct dialed) and not 0+ (i.e. operator assisted). The monthly recurring charge of \$2.50 is applied to each Subscriber line, not per account. This charge may be pro-rated for the first month and billed in advance. Per minute of use rates for interstate calling are discounted and are payable in arrears. <a href="#">Residential Pricing Guide</a>	Albertville, MN Internet + Voice: \$29.99/month for 12 months + \$19.00/month for 12 months <b>Internet Plus</b> <ul style="list-style-type: none"> <li>• Up to 30 Mbps download speeds – 10X faster than standard DSL</li> <li>• Bandwidth to support more devices than other Internet providers</li> <li>• Simultaneously stream videos, download music and more without sacrificing Internet performance</li> <li>• Automatic detection from viruses, hackers and spam with Charter Security Suite®</li> <li>• FREE modem</li> </ul> <b>Phone Unlimited</b> <ul style="list-style-type: none"> <li>• Reliable phone with unlimited local and long distance calling in the U.S., Canada, &amp; Puerto Rico</li> <li>• No added fees like the phone company charges you</li> <li>• Includes voicemail and 13 popular calling features</li> <li>• FREE 411 calls</li> </ul> <a href="#">Albertville Bundle</a>

Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
			Charter Phone <sup>®</sup> Unlimited - \$29.99/mo for 12 mos when bundled <b>Bundle price is \$89.97/mo. Yr 1 &amp; \$109.97/mo. Yr 2;</b> standard rates apply after 2 years. Qualifying bundle includes Charter TV Select, Charter Internet Plus with speeds up to 30 Mbps and Charter Phone Unlimited. <b>TV equipment required &amp; is extra;</b> Charter Internet modem is required & included in price; Phone taxes, fees, & surcharges are included in price; other equipment, install, taxes, fees & surcharges may apply. <a href="#">Product Offer Disclaimer</a>
Comcast	Wireline/Cable	Minneapolis - XFINITY voice Local with More <sup>®</sup> - <b>\$34.95/month</b> <b>Package Details:</b> <ul style="list-style-type: none"> <li>○ Unlimited local calling – plus nationwide long-distance for just 5 cents a minute.</li> <li>○ Reliable phone service with the best call clarity.</li> <li>○ It’s easy to switch – you can keep your current number.</li> <li>○ 12 popular calling features including Caller ID, Call Waiting, and more.</li> <li>○ Backed by the 30-Day Money Back Comcast Customer Guarantee.</li> </ul> This price is for customers who currently do not subscribe to other XFINITY services.  Limited to residential customers. Not available in all areas. Offer limited to XFINITY Voice Local with More <sup>®</sup> service. Pricing subject to change. Equipment, installation, taxes, the Regulatory Recovery Fee and other applicable charges (e.g., per-call, toll and international rates) extra. \$29.95 activation fee waived if service ordered via www.comcast.com. Local with More <sup>®</sup> applies to direct-dialed calls from home to locations covered by the plan. Contact Comcast for applicable coverage areas. Service (including 911/emergency services) may not function after an extended power	<b>Performance Internet &amp; XFINITY Voice Unlimited<sup>®</sup></b> - \$39.99/month for the first 12 months with 2 year agreement- 25 Mbps, Unlimited Nationwide Talk & Text, access to 1 million WIFI hotspots at no extra cost <b>Package Details:</b> <ul style="list-style-type: none"> <li>○ Lightning-fast download speeds—so you can share photos, book travel, watch online videos.</li> <li>○ Constant Guard<sup>®</sup>—The most comprehensive online protection of any major Internet provider at home and now on your mobile devices.</li> <li>○ Unlimited nationwide talk and text.</li> <li>○ Voicemail you can check online or read as an email—on your smartphone or laptop.</li> <li>○ Backed by the 30-Day Money-Back Comcast Customer Guarantee.</li> </ul> An <a href="#">XFINITY Internet Data Usage Plan</a> may apply  Offer ends 01/04/15. Restrictions apply. Not available in all areas. Limited to new residential customers. Requires subscription to Performance Internet service and XFINITY Voice Unlimited <sup>®</sup> service. 2-year agreement required. Early termination fee applies. Equipment, installation, taxes and fees, including Broadcast TV Fee (currently up to \$1.50/mo.) and the Regulatory Recovery Fee and other applicable charges (e.g., per call or international) extra, such charges and fees subject to change during and after the promotion. After 12 months, the monthly service charge for Performance Internet Service and XFINITY Voice

Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
		<p>outage. Transfers of existing telephone number not always available. Call clarity claim based on January 2013 analysis of traditional phone service by Tektronix. Savings claim based on comparison of XFINITY Voice Local with More service (with XFINITY TV or Internet service) and comparably featured traditional phone service as of January 2012. 30-Day Money-Back Guarantee applies to one month's recurring service charge and standard installation charges up to \$500. Call for restrictions and complete details. ©2014 Comcast. All rights reserved. Norton™ is a registered mark of Symantec Corporation.</p> <p><a href="#">Comcast Pricing</a></p>	<p>Unlimited® increases to \$59.99 for months 13-24. After applicable promotional periods, or if any service is cancelled or downgraded, regular rates apply. Comcast's current monthly service charge for Performance Internet, ranges based on area, from \$50.95 to \$66.95, XFINITY Voice Unlimited® from \$39.95 to \$44.95 and Streampix is \$4.99 (pricing subject to change). Internet service limited to a single outlet. May not be combined with other offers. Internet: Actual speeds vary and not guaranteed. Not all features, including Constant Guard™, are available with Macintosh systems. XFINITY WiFi included with Performance Internet and above only. Hotspots available in select areas. Requires WiFi enabled device. Voice: \$29.95 activation fee may apply. Readable Voicemail requires XFINITY Voice and XFINITY Internet services. Transfers of existing telephone number not always available. Service (including 911/emergency services) may not function after an extended power outage. Call clarity claim based on January 2013 analysis of traditional phone service by Tektronix. Caller ID on TV and laptop requires subscription to XFINITY TV, Internet, and Voice services. 30-Day Money-Back Guarantee applies to one month's recurring service charge and standard installation up to \$500. Call for restrictions and complete details. ©2014 Comcast. All rights reserved. All trademarks are the property of their respective owners.</p> <p><a href="#">Comcast Bundle Pricing</a></p>
CTC	Wireline	<p>Brainerd, MN</p> <p>Custom build your own bundle and save</p> <p>Local Phone - \$14.95/month plus \$5 service line charge</p> <p><a href="#">CTC Local Phone</a></p>	<p>CTC Shopping Cart</p> <p>3m High Speed Internet - \$30.00</p> <p>Local Phone Service - \$14.95</p> <p>Feature Connections - \$10.00</p> <p>Voice mail, Caller ID, Call Waiting, Voice mail to email</p> <p>Long Distance (\$.05 per minute)</p> <p>Voice Mail - \$3.50</p> <p>Discount - -\$15.00</p> <p>Total - \$43.45</p> <p><a href="#">CTC Bundle</a></p>



Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
Federated Telephone Company	Wireline	Morris, MN  Residential Rate - \$15.00 per access line (excluding taxes or charges) Includes call forwarding, 3 way calling, speed calling 8 Voice mail - \$3/month Caller ID - \$3/month  <a href="#">Federated Telephone Basic</a>	Simple Solution - \$38.95 Local phone + Calling features Simply Basic Cable TV Federated Long Distance (4 options)  Surfer Solution - \$50.45 Local Phone + Calling Features 20M High Speed Internet Federated Long Distance (4 options)  All bundles include call waiting, call forwarding, 8# speed dial, 3 way calling, caller ID and premium voice mail <a href="#">Federated Bundles</a>
FTTH	Wireline	Rosemount and Albertville  Basic Phone Service - \$40.00 Mo.  Residential Plus Phone Service - \$49.95 Mo. Free long distance US, Canada and Puerto Rico Voice mail                    Caller ID                    Call Waiting Call Transfer                    Call Return                    Calling Name Retrieval Call Forwarding No Answer, Busy and Always  <a href="#">FTTH New Subscriber Basic</a>	Triple Play Everything: ( <i>Internet, Expanded Basic TV &amp; Phone</i> ) 20 Mbps, 2 TVs, Over 200 Channels, ( <i>Whole Home DVR &amp; HD</i> ) \$99.95 for 1st 3 mos. on 2 yr contract then \$129.95 or \$129.95 month to month.*  Double Play: ( <i>Internet, Expanded Basic TV</i> ) 20 Mbps, 2 TVs, Over 200 Channels, ( <i>Whole Home DVR &amp; HD</i> ) \$89.95 for 1st 3 mos. on 2 yr contract then \$119.95 or \$119.95 month to month.*  Double Play: ( <i>Internet, Phone</i> ) 20 Mbps Internet and fully featured phone. \$69.95 for 1st 3 mos. on 2 yr contract then \$89.95 or \$89.95 month to month.*  <b>Single Play Services:</b> All prices per month. All single play internet promotion prices good for 12 months w/2 year agreement <b>Internet Services:</b> 100 Mbps - \$159.95 (or +\$100 for existing customer) 50 Mbps - \$99.95 (or +\$30 for existing customer) 20 Mbps - \$49.99 <b>TV services:</b>

Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
			Basic-34 channels - \$25.95 Expanded basic channels -\$69.95 HD - \$9.95 whole home DVR -\$15.95 whole home Additional box rental @ \$5.95 each # ____ <b>Phone services:</b> Basic - \$40.00 Mo. Full featured - \$49.95 Mo. * <b>Disclosure of Taxes, Fees and other Surcharges</b> • Internet - None • Phone – Sales Tax, Fed Excise & USF, 911, Line Fee, Sales Tax, Tele Assist/Relay – approx \$7.40 • TV – Sales Tax, FCC Video, Town PEG & Franchise, FTTH Surcharge for Distribution Antenna Channels & Expanded Sports Surcharge – approx \$10.60  <a href="#">FTTH New Subscription Rates</a>
Frontier	Wireline	Mound, MN  Full featured Home Phone - \$27.99/month with qualifying phone service <a href="#">Full Featured Pricing</a>	Frontier Double Play – Frontier Internet starts at \$19.99 per month with qualifying phone service. Includes caller ID, call waiting, 3 way calling, basic voicemail, call forwarding and more.  <a href="#">Bundle pricing</a>
Integra	Wireline	Phone – A La Carte (Prior Lake, Savage Webster – former Scott Rice ILEC area) Unlimited calling to the Minneapolis/St. Paul Metro Calling Area Enhanced 911 (even during power outages) Long Distance calling plans can be added to meet your needs A la carte and bundled calling features can be added to your line Protect your home's wiring with optional Maintenance Plan Free listing in the Integra Telecom phone directory  Long distance: Casual Advantage	Internet and Phone - \$75.99 1 Mb download speed 4 free email addresses Free mailguard and virus filtering ESPN3.com online sports access  Unlimited local and domestic calling Enhanced 911 (even during power outages) 13 calling features  10Mb - \$89.99 (same as above)

Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles																					
		<p>No monthly fees  All domestic calls are \$.18/minute</p> <p>9 Anytime  \$4.95 monthly fee  All domestic calls are \$.09/minute</p> <p>Value Plans</p> <table border="1"> <thead> <tr> <th>Minutes</th> <th>MRC</th> <th>Overage</th> </tr> </thead> <tbody> <tr> <td>75</td> <td>\$5.99</td> <td>\$0.09</td> </tr> <tr> <td>100</td> <td>\$6.99</td> <td>\$0.09</td> </tr> <tr> <td>200</td> <td>\$12.99</td> <td>\$0.09</td> </tr> <tr> <td>300</td> <td>\$14.99</td> <td>\$0.09</td> </tr> <tr> <td>500</td> <td>\$19.99</td> <td>\$0.09</td> </tr> <tr> <td>1,000</td> <td>\$39.99</td> <td>\$0.09</td> </tr> </tbody> </table> <p><a href="#">Integra Phone Rates</a></p>	Minutes	MRC	Overage	75	\$5.99	\$0.09	100	\$6.99	\$0.09	200	\$12.99	\$0.09	300	\$14.99	\$0.09	500	\$19.99	\$0.09	1,000	\$39.99	\$0.09	<p>20Mb - \$99.99 (same as above)  30Mb - \$119.00 (same as above)</p> <p><a href="#">Integra Internet and Phone</a></p> <p><a href="#">Integra Bundles</a></p>
Minutes	MRC	Overage																						
75	\$5.99	\$0.09																						
100	\$6.99	\$0.09																						
200	\$12.99	\$0.09																						
300	\$14.99	\$0.09																						
500	\$19.99	\$0.09																						
1,000	\$39.99	\$0.09																						
Hiawatha Broadband	Wireline	<p>Wabasha, MN</p> <p>Local Service Main Line: \$13.70/month  Additional Line/Line- \$8.50  Caller ID - \$5.75  Call Waiting - \$3.00  Voicemail - \$4.95</p> <p>Long Distance Calling Plans  Unlimited Long Distance/Line - \$19.95  Phone Cents – 3.5¢/min.  Clear savings plus (60 minutes free) – 9.0¢/min.  <a href="#">Wabasha Rates</a></p>	<p>VIP Choice – 3 Service Packages  VIP Bronze - \$117.45/month</p> <ul style="list-style-type: none"> <li>▪ Expanded Digital TV (90+ channels) with DVR, HD and digital music</li> <li>▪ Up To 50 Mbps Internet with Home WiFi**</li> <li>▪ Landline Phone with Caller ID and Voicemail</li> </ul> <p>VIP Silver - \$126.95/month</p> <ul style="list-style-type: none"> <li>▪ Digital Plus TV (120+ channels) with DVR, HD and digital music</li> <li>▪ Up To 50 Mbps Internet with Home WiFi**</li> <li>▪ Landline Phone with Caller ID and Voicemail</li> </ul> <p>Free Internet – 3 Service Packages  Choice - \$64.35/month</p> <ul style="list-style-type: none"> <li>▪ Up To 5 Mbps Internet</li> </ul>																					

Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
			<ul style="list-style-type: none"> <li>▪ Basic TV (25+ channels)</li> <li>▪ Landline Phone with Caller ID, Voicemail and Unlimited Long Distance Select - \$94.12/month <ul style="list-style-type: none"> <li>▪ Up To 5 Mbps Internet</li> <li>▪ Expanded Digital TV (90+ channels)</li> <li>▪ Landline Phone with Caller ID and Voicemail</li> </ul> </li> </ul> <p><a href="#">Hiawatha Bundles</a></p>
Mediacom	Cable/wireline	<p>Excelsior, MN</p> <p>Mediacom Digital Phone - \$9.95 for 12 months for current Mediacom customers. Price does not include monthly modem rental. After introductory price - \$29.95 once (monthly phone when packaged with family and high speed price)  Voice mail price - \$4.95/month  Long distance minutes – unlimited  Caller ID – included  Call waiting – included  Call Return – included  3way calling – included</p> <p><a href="#">Mediacom Basic</a></p>	<p>PERFORMANCEpak Double Play – Cable and Internet - Prime TV and Prime Plus Internet for \$89.95 per month for the first 12 months. Price does not include monthly modem rental. After introductory price - \$148.90/month</p> <p>Boundary Free TV Prime and Lower Cost Phone - Prime TV and Mediacom Phone for \$79.95 per month for 12 months. Price does not include monthly modem rental. After Introductory Price - \$128.90/month</p> <p>Mediacom PERFORMANCEpak Triple Play - Prime TV, Prime Plus Internet and Mediacom Phone for \$99.95 per month for 12 months. Price does not include monthly modem rental. After Introductory Price - \$178.85/month</p> <p><a href="#">Mediacom Bundles</a></p>
Paul Bunyan	Wireline	<p>Bemidji, MN</p> <p>Residential telephone service rates - \$16.00/month, excluding taxes and service charges</p> <p>SIMPLE CONNECT PLAN Includes</p> <ul style="list-style-type: none"> <li>• One Residential Phone Line</li> <li>• Call Forwarding Busy Line/No Answer</li> <li>• 30 Number Speed Calling</li> </ul>	<p>Lite Connection 2  \$96.95/Month</p> <p>Broadband Internet</p> <ul style="list-style-type: none"> <li>• 20Mb UPLOAD/Download</li> <li>• Local tech Support</li> </ul> <p>PBTv</p> <ul style="list-style-type: none"> <li>• Over 55 Networks including galaxie music channels &amp; local radio stations</li> <li>• PBTv Everywhere</li> <li>• PBTv ONDEMAND</li> </ul>

Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
		<ul style="list-style-type: none"> <li>• 3 Way Calling</li> <li>• Caller ID Name/Number*</li> <li>• Call Waiting/Caller ID*</li> <li>• Anonymous Call Rejection</li> <li>• Basic Voice Mail</li> <li>• Inside Wire Maintenance</li> <li>• Visual Message Waiting Indicator</li> </ul> <p><a href="#">Paul Bunyan Rates</a></p>	<p>Digital Voice</p> <ul style="list-style-type: none"> <li>• Includes Caller ID, Voice Mail, Call Waiting &amp; More</li> </ul> <p>Our lite plans remove many of the high cost networks and allow us to provide TV service at a lower price.</p> <p>Digital Connection 2 \$118.95/Month</p> <p>Broadband Internet</p> <ul style="list-style-type: none"> <li>• 20Mb UPLOAD/Download</li> <li>• Local tech Support</li> </ul> <p>PBTv</p> <ul style="list-style-type: none"> <li>• Over 100 Networks plus galaxie music channels &amp; local radio stations</li> <li>• PBTv Everywhere</li> <li>• PBTv ONDEMAND</li> </ul> <p>Digital Voice</p> <ul style="list-style-type: none"> <li>• Includes Caller ID, Voice Mail, Call Waiting &amp; More</li> </ul> <p><a href="#">Bundles</a>  <a href="#">Complete Packages Brochure</a></p>
Velocity	Wireline	<p>Minneapolis, MN</p> <p>Basic Analog Telephone – no features - \$19.99/month  Analog Phone – Choose 3 Standard Features - \$29.99/month</p> <p><a href="#">Velocity Basic</a></p>	<p>Video DSL+ Digital Phone: All digital phone features, 12 Mbps: \$69.99/month  Video DSL+ Digital Phone: All digital phone features, 7 Mbps: \$59.99/month  Video DSL +Basic Phone, no features: 12 Mbps - \$77.99, 7 Mbps - \$67.99  Video DSL + pick 3 Phone features – 12 Mbps - \$84.99, 7 Mbps - \$74.99, 1.5 Mbps – \$64.99</p> <p><a href="#">Velocity Bundles</a></p>
Windstream	Wireline	<p>Elk River, MN</p> <p>Lifetime Price Guarantee Unlimited Phone  \$44.99 PER MONTH  Talk as much as you want!  Details</p>	<p>Monthly Service Summary</p> <ul style="list-style-type: none"> <li>• Internet</li> </ul> <p>High speed internet - \$59.99/month  Digital TV - \$29.99/month  Phone – Unlimited Phone - Included  \$89.98 excluding taxes and fees</p>

Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
		<u>Windstream Basic</u>	<a href="#">Windstream bundle</a>
Verizon	Wireless	<p>Single Line Plan - \$60 (\$45 with Edge) or \$75 (\$60 with Edge)  Voice &amp; Text Allowance – Unlimited  Data Allowance – 1 GB / 2 GB  Data Overage - \$15-500 MB / \$15/1 GB</p> <p>Families get <b>MORE</b> for less.  4 lines can share 10 GB data for only \$140 monthly access with Verizon Edge.</p> <ul style="list-style-type: none"> <li>• Award-winning call, text and data performance.</li> <li>• Includes savings of up to \$25 per smartphone on your monthly line access when you buy your phone with Verizon Edge.</li> </ul>	<p>The More Everything Plan – flexible and affordable - \$140/monthly access Unlimited Talk and Text, Shareable Data – up to 10 devices, Personal Hotspot, International Messaging, 25 GB Cloud Storage, NFL Mobile App, 2 year agreement</p> <p><a href="#">More Everything Plan</a></p> <p>Verizon Edge helps you save - When you buy your smartphone on Verizon Edge, you receive exclusive savings on your wireless plan. Verizon Edge is a way to purchase a smartphone. The full retail price is broken down into 24 affordable monthly payments and added to your bill. <b>Save \$15</b> on your smartphone monthly line access on The MORE Everything Plan with 500 MB to 8 GB of data. <b>Save \$25</b> per smartphone monthly line access for 10 GB or higher plans. For a limited time, get a \$150 Bill Credit per smartphone when you bring your number to Verizon—that’s \$600 in savings for a family of four.</p> <p><a href="#">Verizon Edge</a></p>
Sprint	Wireless	<p>Minneapolis, MN  Phone Connect Plan - \$19.99/month  Replace your current landline or digital phone service with unlimited Sprint phone service at your home or office</p> <p>Unlimited anytime minutes  Night and weekend calling starting at: use minutes for off-peak weekday and weekend hours  Domestic long distance  Standard features</p>	<p>Family Plan  20 GB to Share + Unlimited talk and text only \$100/month for the entire family up to 10 lines, waiving month access charges for phones through 2015. After 2015, pay \$100 plus the \$15/month/line access charge.</p> <p>Single line iPhone 6 or 6 plus price - \$50/month  Unlimited talk, text &amp; data (while on Sprint network)</p> <p>Single-line price - \$60/month  Unlimited talk, text &amp; data (while on Sprint network)</p>

Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
AT&T	Wireless	<p><a href="#">Sprint Home phone</a></p> <p>Minneapolis, MN</p> <p>AT&amp;T Wireless Home Phone</p> <p>Get the AT&amp;T Wireless Home Phone device for FREE** with a new two-year agreement. That's a \$99.99 value! For service, enjoy unlimited nationwide calling for \$20 per month. Plus, get these great calling features at no extra charge:</p> <ul style="list-style-type: none"> <li>Call Waiting</li> <li>Caller Number ID</li> <li>Voicemail</li> <li>Three-Way Calling</li> <li>Call Forwarding</li> </ul> <p><i>Can also be added as an additional line to an AT&amp;T Mobile Share Value® plan.</i></p> <p><i>**2-yr agmt w/ qual. voice plan req'd.</i></p> <p>No annual contract - \$99.99  Waived activation. Excludes 2-year wireless agreements. No annual contract pricing new activation and qualifying monthly voice plan.</p> <p><a href="#">AT&amp;T home</a></p> <p>Home Phone – AT&amp;T Unlimited Plus Plan - \$32.99</p> <ul style="list-style-type: none"> <li>• Unlimited state-to-state, in-state, and local toll* calls direct dialed from home 24 hours a day, 7 days a week.**</li> <li>• \$32.99 monthly plan fee.</li> <li>• Your choice of convenient payment options, including <a href="#">AT&amp;T</a></li> </ul>	<p><a href="#">Sprint sharing plans</a></p> <p>AT&amp;T Double Pack – Under \$39/month for 12 months / \$54/month for 12 months  Home Phone – Unlimited Calling / Unlimited Local and Long Distance Calling  High-Speed Internet – Up to 3.0 Mbps / Up to 1.5 Mbps</p> <p>AT&amp;T Triple Pack – Under \$75/month for 12 months  Home Phone – Unlimited local and long distance calling  High-Speed Internet – Up to 6.0 Mbps  Digital TV – DirecTV Xtra Package</p> <p><a href="#">AT&amp;T Compare</a></p>

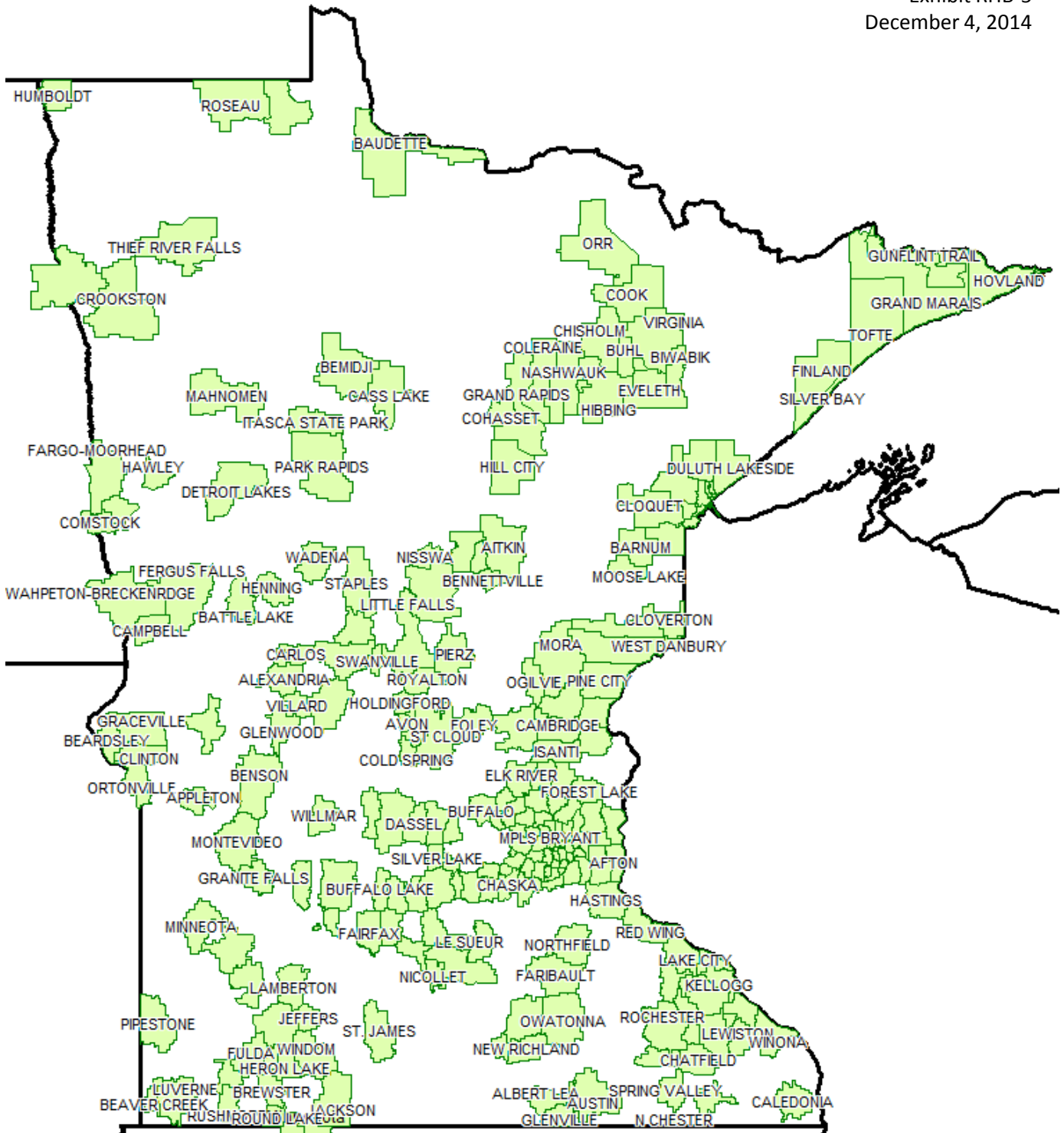
Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
		<p><a href="#">Online Billing</a>.</p> <ul style="list-style-type: none"> <li>• This plan is available to new and existing AT&amp;T long distance customers. You must have AT&amp;T as your residential long distance carrier to qualify for this plan.</li> <li>○ <b>If you are an existing AT&amp;T long distance customer</b>, you do not need to cancel your current domestic long distance calling plan when you sign up for this plan. When you sign up for this plan, it will automatically replace any other AT&amp;T domestic long distance calling plan you may be currently enrolled in.</li> <li>○ <b>If you are not already an AT&amp;T long distance customer</b>, please follow the instructions for completion of an online Letter of Agency which will authorize AT&amp;T to switch your long distance service from your current carrier to AT&amp;T. Important Notice for <b>California</b> and <b>Connecticut</b> customers: To complete your web order, you must contact AT&amp;T at 1- 888-928-8932 where one of our customer service representatives will place the order for you.</li> <li>• This plan covers residential voice calls only and does not include Internet access services, commercial, telemarketing, or other non-residential uses.***</li> <li>• Offer subject to billing availability. <a href="#">Universal Connectivity Charge</a> and <a href="#">Carrier Cost Recovery Fee</a> also applies. In some states, a monthly <a href="#">In-state Connection Fee</a> and state charges apply.</li> </ul> <p><a href="#">AT&amp;T Home</a>  <a href="#">AT&amp;T Compare</a></p>	
AT&T Wireless	Wireless	Basic Cell phone - \$40/month 300 MB Mobile Share Value Plan - \$20/month Device 1 (2 yr Agreement) - \$20/month Service Estimate - \$40/month	AT&T Mobile Share® Value plans with Unlimited Talk & Text Plans include Unlimited Talk & Text for your phones, shared data for all your devices, and range from 300MB to 50GB of data to share.* You may add up to 10 devices to each Mobile Share Plan. Use the <a href="#">Mobile Share Planner</a> to estimate



Carrier	Wireless/Wireline	Least Expensive Basic Service	Basic Service Bundles
		Smartphone - \$65/month 3 GB Mobile Share Value Plan - \$40/month Device 1 - \$25/month Service Estimate - \$65/month <a href="#">AT&amp;T Build Your Plan</a>	data usage across all your devices. \$100/month + Device Access Charge Unlimited Talk & Text 10 GB <a href="#">AT&amp;T Mobile Share</a>
T-Mobile	Wireless	Single Phone - \$50/month At T-Mobile, simple means one plan. With our Simple Choice Plan, every line gets: <ul style="list-style-type: none"> <li>• Unlimited talk, text &amp; data while on our network with no overages. Ever.</li> <li>• Up to 1 GB of 4G LTE data on the fastest nationwide 4G LTE network</li> <li>• Unlimited music streaming on services like Pandora, iHeartRadio and more that doesn't count against your 4G LTE data</li> <li>• Unlimited international data &amp; text in <u>120+ countries and destinations</u> PLUS unlimited international texting from the U.S. to virtually anywhere*</li> <li>• No annual service contracts</li> </ul> <a href="#">T-mobile individual</a>	Family Plan – At T-Mobile, simple means one plan. No matter if you get 2 lines or 6, on our Simple Choice Plan, every line gets: <ul style="list-style-type: none"> <li>• Unlimited talk, text &amp; data while on our network with no overages. Ever.</li> <li>• No annual service contracts</li> <li>• Up to 1GB of 4G LTE data on the fastest nationwide 4G LTE network</li> <li>• Unlimited music streaming on services like Pandora, iHeartRadio and more that doesn't count against your 4G LTE data</li> <li>• Unlimited international data &amp; text in <u>120+ countries and destinations</u> PLUS unlimited international texting from the U.S. to virtually anywhere*</li> </ul> 2 Lines Plan - \$80 per month 3 lines Plan - \$90 per month 1GB - \$50/month includes unlimited talk, text & data 3GB - \$60/month 5GB - \$70/month Unlimited - \$80/month  <a href="#">T-mobile Family</a>

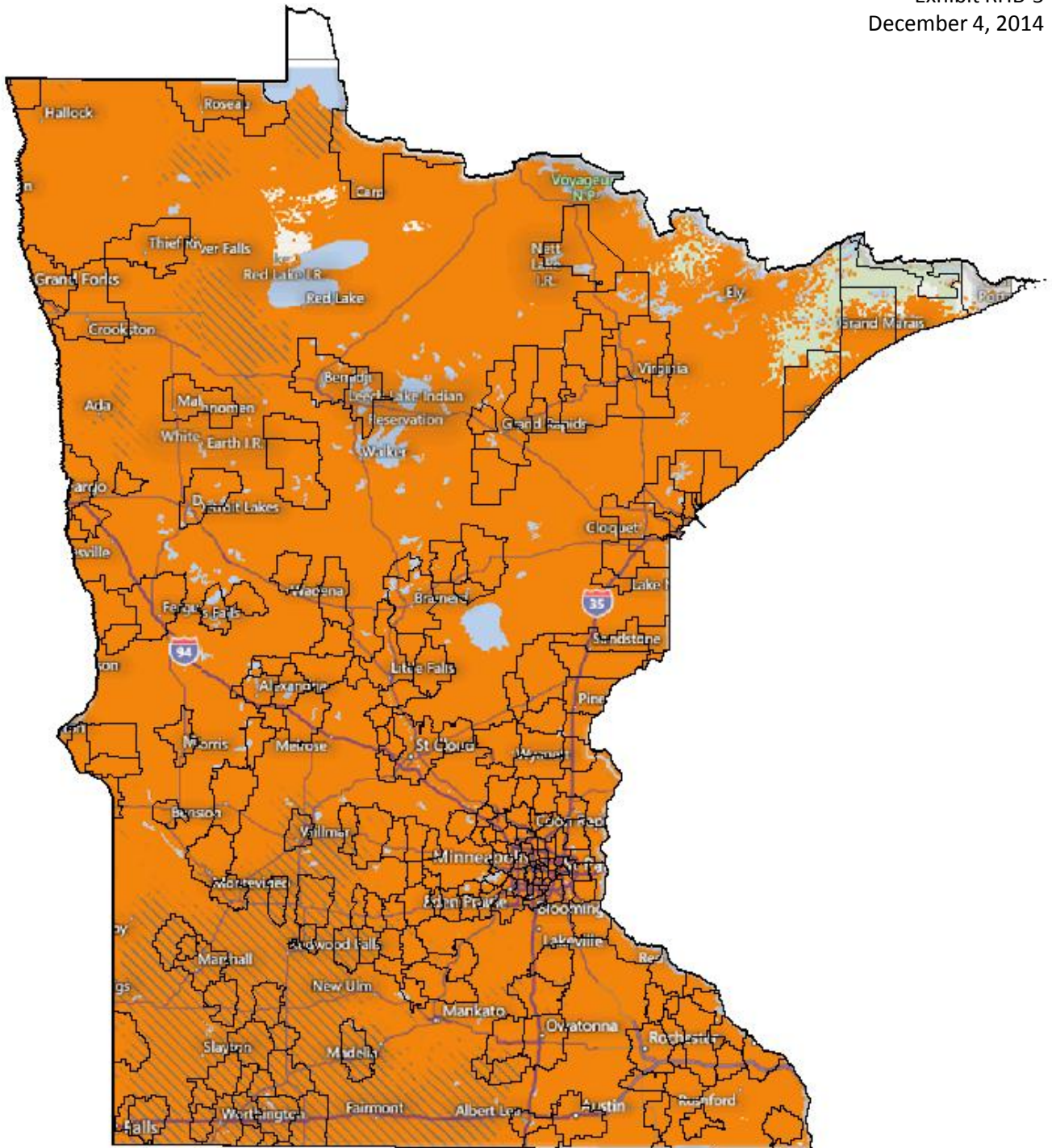
# CenturyLink Minnesota Wire Centers

Affidavit of Robert Brigham  
CenturyLink  
Docket No. P-999/R-14-413  
Exhibit RHB-5  
December 4, 2014



# AT&T Wireless Coverage CenturyLink Minnesota Footprint

Affidavit of Robert Brigham  
CenturyLink  
Docket No. P-999/R-14-413  
Exhibit RHB-5  
December 4, 2014

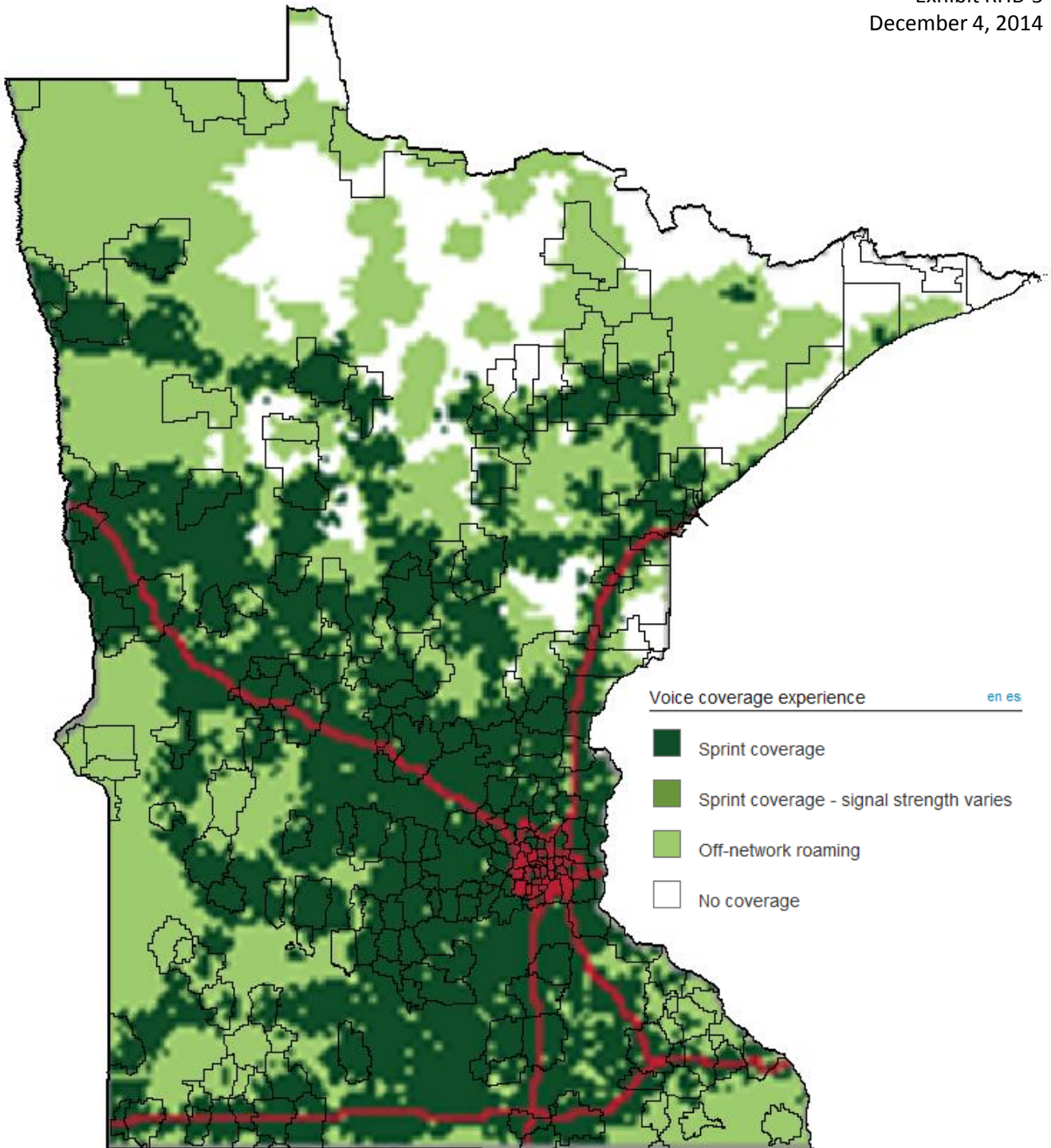



HD Voice    Voice    3rd Party

CenturyLink Wire Center

# Sprint Wireless Coverage CenturyLink Minnesota Footprint

Affidavit of Robert Brigham  
CenturyLink  
Docket No. P-999/R-14-413  
Exhibit RHB-5  
December 4, 2014

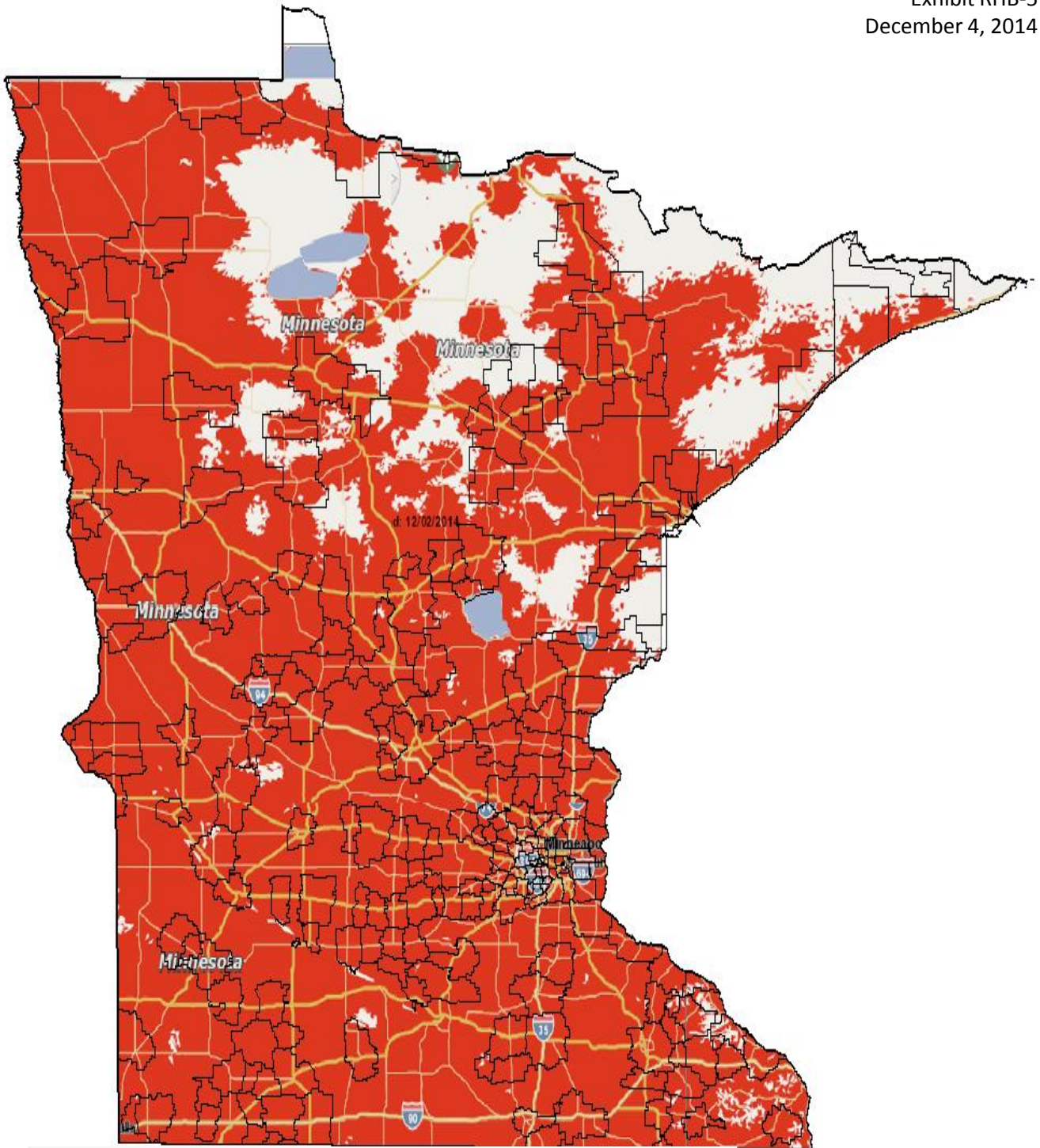


 CenturyLink Wire Center





# Verizon Wireless Coverage CenturyLink Minnesota Footprint


Affidavit of Robert Brigham  
CenturyLink  
Docket No. P-999/R-14-413  
Exhibit RHB-5  
December 4, 2014




## Map Legend

 Digital Coverage

 Extended Digital Coverage

 No Coverage

 CenturyLink Wire Center

**Affidavit of Dr. Brian K. Staihr**  
**Lecturer in Economics, University of Kansas**

**Qualifications/Background.** My name is Brian K. Staihr. I am employed as Lecturer in Economics at the University of Kansas. My business address is 351 Snow Hall, 1460 Jayhawk Boulevard, Lawrence Kansas 66045. I hold a B.A., M.A. and Ph.D. in Economics and my field of specialization is Industrial Organization, which includes Regulation. For seventeen years I served as in-house economist for several communications companies: Sprint (Local Telecom Division), then Embarq, then CenturyLink. In that capacity I have testified on economic issues before both the U.S. Senate and U.S. House of Representatives, as well as before the Federal Communications Commission (“FCC”) and the Commissions/Boards of the following states: Florida, Georgia, South Carolina, North Carolina, Virginia, New Jersey, Pennsylvania, Tennessee, Texas, Missouri, Kansas, Nebraska, New Mexico, Nevada, California, Illinois, and Indiana. I have been teaching economics to both graduate and undergraduate students for twenty years, and since 2009 I have taught full-time at the University of Kansas.<sup>1</sup>

**Introduction.** In its Request for Comments issued this past August the Commission asked interested parties to “provide evidence of competition, including the level and scope of such competition” for voice service in Minnesota. The accompanying affidavit of Mr. Robert H. Brigham, Director of Regulatory Operations for CenturyLink, contains detailed data—at a geographically disaggregated level—regarding the existence, level, and scope of competitive voice offerings found throughout the company’s Minnesota serving territory. The purpose of this affidavit, which serves as a *companion piece* to the affidavit of Mr. Brigham, is twofold: 1) To provide a framework, based on sound economic principles, for evaluating the competitive

---

<sup>1</sup> More information available at <http://www.economics.ku.edu/people/faculty.shtml>.

data provided by Mr. Brigham, and 2) to provide guidelines—again based on sound economic fundamentals—regarding the proper role for regulation in the market for voice service in Minnesota.

Regarding those two points—the state of competition and the role of regulation—the facts at hand produce these two conclusions:

1) The market for voice service is effectively competitive across CenturyLink’s Minnesota serving territory.

2) When a market *is* effectively competitive, the role of regulation is not to set standards or impose requirements that may or may not reflect customers’ preferences; such standards may actually produce real harms and impose real costs, despite regulators’ best intentions. The role of regulation is to ensure that the market remains open and that competitors operate on a level playing field.

Each of these is discussed in detail in the pages that follow.

**Defining Competition.** Economic fundamentals tell us that, in any market economy, *consumers*<sup>2</sup> ultimately determine what products and services will be bought and sold. Consumers’ tastes (or *preferences*, in economic parlance) determine which products will be demanded; producers respond by supplying those products, and products for which there is no demand will exit the market. Similarly, consumers’ preferences determine—across the spectrum of goods and services—which products are capable of satisfying the *same* customer demand. Competition, at its most basic, requires the presence of two or more providers (suppliers) of goods or services capable of satisfying the same consumer demand; in other words: Substitutes.

---

<sup>2</sup> Throughout this affidavit the use of the word “consumer” does not refer to the standard telecommunications distinction of “consumer” v. “business” customer. Rather, “consumer” refers to the generic buyer or “demander” of a product or service.



At first glance this criteria—two or more services capable of satisfying the same consumer demand—might seem overly simplistic. In fact, it is complex and filled with important implications for the Commission’s task at hand. Whether or not two or more services are capable of satisfying the same consumer demand is determined entirely by customer perceptions: If a customer views two products as acceptable substitutes then they are. It is not necessary that the two products be similar in any way (this is discussed in more detail below). All that is required is that the two products be available to the consumer and that they offer—in the consumer’s mind—“reasonable interchangeability of use”.<sup>3</sup> From an economic perspective, “reasonable interchangeability of use” transcends any other characteristic for determining whether two products are substitutes.

The term “reasonable interchangeability of use” is sometimes defined as “functional equivalence”, but not always. Depending on the definition (see footnote 4) two products need not be “functionally equivalent”<sup>4</sup> to act as substitutes and compete with each other, a fact that the Minnesota Legislature has acknowledged in the past by making explicit reference to “the ability of alternate providers to make functionally equivalent *or* substitutable services readily

---

<sup>3</sup> Reasonable interchangeability of use is a standard found throughout both economics and antitrust literature. This standard was adopted by the U.S. Supreme Court in 1962 in *Brown Shoe Co. v. United States* (370 U.S. 294, 325 (1962)) and has generally been adopted since. It is the standard that is explicitly mentioned in the 2010 U.S. Department of Justice/Federal Trade Commission (“DOJ/FTC”) Horizontal Merger Guidelines (page 9) as well as in economics textbooks (see Footnote 9 below). ALSO NOTE: Any and all references made throughout this affidavit to legal proceedings, outcomes, rulings etc. are made as an economist with regard to the economic concepts involved and are not intended as legal conclusions or legal interpretations.

<sup>4</sup> Functional equivalence is a term that has different meaning across different disciplines. Sometimes it is defined as *doing the same thing the same way* and other times it is defined as *fulfilling the same function for the end user*. For example, two financial products may be viewed as “functionally equivalent” if they allow an investor to diversify or reduce risk in a similar fashion even if their method for doing so differs, whereas two pharmaceutical compounds may be viewed as “functionally equivalent” if they are chemically dissimilar but produce the same physiological reaction in a patient (e.g. ibuprofen v. acetaminophen).

available...”<sup>5</sup> (emphasis supplied). For example, the FCC and the Courts have found that cable television and satellite television are indeed competitive substitutes.<sup>6</sup> The two services obviously fulfill the same function for the end user, but their method for doing differs. Similarly, wireless voice service and wireline voice service fulfill the same function for the end user, but their method for doing so differs. To move to an example beyond the realm of communications, a traveler arriving at Reagan National Airport in Washington DC has the choice of taking a taxi into the city or taking the DC Metro (subway). All three of these examples (cable television & satellite television, wireline voice & wireless voice, DC taxi & DC subway) fulfill the same function and clearly provide reasonable interchangeability of use, but differ in their methods for doing so.

“Reasonable interchangeability of use” also transcends similarity of price or quality across products. Again, moving beyond the realm of communications, well-known examples include the U.S. Supreme Court finding that “high-end” ice cream competes with lower quality ice cream in the same market.<sup>7</sup> Similarly, energy drinks have been used as textbook examples of substitutes for other soft drinks, despite the fact that “energy drinks sell for three times as much per ounce” as soda.<sup>8</sup> In short, two products or services need not be similar, or functionally equivalent, or similarly priced, or of similar quality to operate as substitutes. All that is required,

---

<sup>5</sup> Minn. Stat. §237.59, Subd. 5 (b).

<sup>6</sup> See, for example, the FCC’s Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming (available at [www.fcc.gov](http://www.fcc.gov)). Also see *Cable Holdings v. Home Video, Inc.*, 825 F.2d 1559, 1563 (11<sup>th</sup> Cir. 1987).

<sup>7</sup> *In re Super Premium Ice Cream Distrib. Antitrust Litig.*, 691 F. Supp. 1262 (N.D. Cal. 1988), *aff’d mem. sub. nom.* *Haagen Dazs Co. v. Double rainbow Gourmet Ice Creams, Inc.*, 895 F.2d 1417 (9<sup>th</sup> Cir. 1990).

<sup>8</sup> R. Glenn Hubbard and Anthony Patrick O’Brien, *Economics*, 3<sup>rd</sup> Edition, Prentice Hall, page 65.

based on economic principles, is the perception on the part of the consumer that the two products can be used for the same purpose or “serve a similar function”.<sup>9</sup>

However, while the presence of substitutes is a *necessary* condition for a market to be deemed competitive, it is not—in and of itself—a *sufficient* condition. Competition also requires that the providers of the substitute services have the desire or intent to satisfy the *same* consumer’s demand. In other words, two or more suppliers—acting independently—must contend to win the same customer and take business away from each other. Competition requires *rivalry*, and the absence of collusion. The courts have characterized this as follows: Two goods are competitive substitutes if they have the ability—actual or potential—to take significant amounts of business away from each other.<sup>10</sup> Implicit in this characterization is that the providers of the services actually have the desire to do so.

Following directly from the paragraphs above, it would be completely consistent with economic fundamentals to evaluate competition in the Minnesota communication markets across *all* forms of communication: voice, data, etc. After all, an e-mail message does offer “reasonable interchangeability of use” with a voice call. And, in the case where a typical customer has different providers for Internet access and voice service, the competitive scenario described above is complete: The customer enjoys more than one provider of a good or service that satisfies the same customer demand, and those multiple providers act as rivals and have the ability and the desire to take away business from each other. Alternately, a much more conservative approach would be to evaluate the market for one specific form of communication: specifically, voice communication. While this is clearly a much more restrictive approach, the

---

<sup>9</sup> Paul Krugman and Robin Wells, *Microeconomics*, 3<sup>rd</sup> Edition, Worth Publishers, page 71.

<sup>10</sup> *SmithKline Corp. v. Eli Lilly & Co.*, 575 F.2d 1056 (3<sup>rd</sup> Cir.), *cert denied*, 439 U.S. 838 (1978).

data provided in the accompanying affidavit of Mr. Robert Brigham follows this approach. That data is discussed in the following section.

**Market Data and “Effective” Competition.** The data presented by Mr. Brigham clearly demonstrates both the *existence* and the *success* of competitive substitutes throughout CenturyLink’s Minnesota serving territory. In every single exchange customers have a choice of more than one alternate provider of voice service, and a choice of both wireless and wireline voice service. And as the data shows, in every single exchange a significant portion of customers have opted for these alternate providers: On average, across exchanges, CenturyLink now provides voice service to less than 1/3<sup>rd</sup> of the voice customers in the market. Returning to the standard laid out in the previous paragraphs (“the ability to take away significant amounts of business from each other and the desire to do so”) it is clear that, in customers’ minds, these other services—cable telephony, VoIP, CLEC voice and wireless—are viable competitive substitutes for CenturyLink’s voice service. These alternatives have indeed “taken away significant amounts of business” from CenturyLink.

Related to these facts, the Legislature has provided a useful benchmark to identify the existence of *effective* competition (as opposed to burgeoning or “emerging” competition) in a market. Specifically the Legislature has stated that in order for the Commission to find a service subject to effective competition “alternate services must be available to over 50 percent of the company’s customers for that service.”<sup>11</sup> Based on the data presented by Mr. Brigham CenturyLink’s markets clearly meet and exceed this benchmark. Returning to the world of economic principles, it is noteworthy that the Legislature’s 50 percent benchmark is based on the *availability* of alternatives, rather than 1) the *ubiquity* of alternatives or 2) a specific measure of

---

<sup>11</sup> See footnote 5.

relative *success* of alternatives (such as a specific market share). Neither the *ubiquity* of alternatives nor the *success* of those alternatives is a necessary condition for effective competition. Starting with the second point, economists have long known that even a small number of competitors with a small combined market share can exert significant competitive pressure in a market, and that achieving a specific market share threshold is not necessary to find effective competition in the market.<sup>12</sup> The data presented by Mr. Brigham clearly demonstrate that alternative providers *have* captured significant market share throughout CenturyLink’s Minnesota serving territory. But the economic fundamentals are clear: A large market share among competitors is a sufficient condition for effective competition but it is not a necessary condition for effective competition.<sup>13</sup> Similarly, economic fundamentals tell us—as described above—that the standard is whether two substitutes are capable of taking away *significant* amounts of business, not *all* business, from each other. Ubiquity of alternatives is also not a necessary condition for effective competition.

In addition to the *availability* standard discussed above, the Legislature’s criteria for effective competition include references to the number and sizes of alternative providers, the ability of alternative providers to make substitute services readily available at competitive rates, terms and conditions, and more.<sup>14</sup> In each of these instances the legislature has not provided a specific measure or threshold that must be met (unlike the availability threshold). But the data

---

<sup>12</sup> Alfred E. Kahn, Telecommunications: The Transition from Regulation to Antitrust, in: Journal on Telecommunications and High Technology Law, Volume 5, 2006, pp. 159-188.

<sup>13</sup> In fact, markets that are characterized as “contestable” are markets that are open to competition and where the mere threat of competition (rather than the presence of competitors) serves to bring about effectively competitive outcomes. In these “contestable” markets competitive outcomes persist even though competitor market shares are zero.

<sup>14</sup> See footnote 5

presented by Mr. Brigham provides solid evidence that these conditions exist in the market for voice service in Minnesota.

In summary, the Legislature’s standard of effective competition is consistent with economic principles, and the data presented by Mr. Brigham clearly demonstrate the existence of effective competition—as measured by the Legislature—throughout the company’s serving territory.

**“Market Power” as it Relates to Effective Competition.** The phrase “market power” is one of the most misunderstood (and misused) concepts in all of economics. Market power is nothing more than the ability of a firm to charge a price greater than marginal cost, and the only firms that do not have market power are firms that operate in perfectly competitive markets.<sup>15</sup> Perfectly competitive markets exist only in economics textbooks.<sup>16</sup> As a result, some degree of market power is both normal in every real-world market, and desirable.<sup>17</sup> And economists have long known that effective competition does not require, or even imply, the absence of market power.<sup>18</sup>

To provide some much-needed context, consider the following: McDonalds and Burger King have market power. Ben & Jerry’s and Baskin-Robbins have market power. Holiday Inn

---

<sup>15</sup> R. Glenn Hubbard and Anthony Patrick O’Brien, *Economics*, 3<sup>rd</sup> Edition, Prentice Hall, page 475.

<sup>16</sup> From *Economics* by David C. Colander: “In physics when you study the laws of gravity you initially study what would happen in a vacuum. Perfect vacuums don’t exist, but talking about what would happen if you dropped an object in a perfect vacuum makes the analysis easier. So too with economics; our equivalent of a perfect vacuum is perfect competition.” 2<sup>nd</sup> Edition, Irwin Publishers, page 549.

<sup>17</sup> Product differentiation is a key source of market power and it is well-established that, because consumers have varied preferences and tastes, consumers benefit from the existence of differentiated products. See for example N. Gregory Mankiw, *Principles of Microeconomics*, 7<sup>th</sup> Edition, Cengage Learning, page 337.

<sup>18</sup> See, for example, “Effective Competition” in Telecommunications, Rail and Energy Markets; *Intereconomics*, Volume 46, Issue 1, 2011.

and Days Inn have market power. Each of these six firms, all of which operate in extremely competitive industries, has some degree of market power because their products—while obviously substitutes for each other—are not identical to each other. Any market in which products or services are differentiated *to any degree at all* is a market characterized by market power.<sup>19</sup> The complete absence of market power in a market requires that all firms in the market sell identical products such that customers make their purchase decisions on price alone and no other factor; not reputation, nor brand loyalty, nor convenience, nor perceived differences across products. Since some degree of market power is normal, the relevant question for the Commission in this proceeding is: What degree of market power constitutes excessive market power?

Economists have also long known that market power for any good or service is inversely related to the price elasticity of demand for that service.<sup>20</sup> As demand becomes more (or less) elastic, market power decreases (or increases). Relatedly, economic principles also tell us that one of the principle determinants of elasticity of demand is whether a product or service is perceived to be a necessity or not-a-necessity (a luxury). In simplest terms, the more a product is considered a necessity, the more *inelastic* demand becomes, and the greater will be the degree of market power enjoyed by the supplier. Conversely, the more a product is considered a luxury (or

---

<sup>19</sup> David Besanko and Ronald R. Braeutgam, *Microeconomics*, 5<sup>th</sup> Edition, Wiley Publishers, page 461.

<sup>20</sup> The well-known Lerner Index, available in any economics textbook, is a mathematical representation of this relationship, which takes the form of  $[(P - MC)/P] = [1 / \text{Elasticity}]$ . The left side (the percentage by which price (P) exceeds marginal cost (MC)) must, by definition, decrease as elasticity increases.

not-a-necessity) the more elastic demand becomes, and the smaller the degree of market power enjoyed by the supplier.<sup>21</sup>

There was a period of time in the past when the wireline voice service offered by CenturyLink was undoubtedly viewed as a necessity. That situation no longer exists, in Minnesota or in any other market. The degree to which CenturyLink customers have “cut the cord” and abandoned wireline service is significant: On average, based on the data supplied by Mr. Brigham, we see that across CenturyLink’s exchanges nearly 40% of customers have abandoned wireline voice service of any kind, from any provider. In many individual exchanges that percentage exceeds 50%. The result of this shifting perception (from “necessity” to “not-a-necessity”) is that any degree of market power that was once enjoyed by CenturyLink with regard to voice service is now dramatically diminished.

The concept of effective competition carries with it the notion that competitive alternatives do not eliminate market power, but constrain any firm’s ability to exercise *significant* market power.<sup>22</sup> This clearly describes the current market for voice service in Minnesota. In 2014 CenturyLink finds itself in the position of having its ability to exercise market power *doubly* constrained: First, by the existence of alternative providers and the presence of effective competition, and second by the changing nature of the wireline voice service in customers’ minds. This fact has considerable implications for the proper role of regulation going forward, and is addressed in a section below.

---

<sup>21</sup> William J. Baumol and Alan S. Blinder, *Economics: Principles and Policy*, 12<sup>th</sup> Edition, South-Western Publishers, page 117.

<sup>22</sup> This concept, “significant” market power, is referenced throughout the DOJ/FTC Horizontal Merger Guidelines that the Commission has requested comment on, and which are addressed in a section below.



**Market Power as it Relates to the DOJ/FTC Horizontal Merger Guidelines.** In its August notice the Commission requested that any discussion of market power should address the (well-known) analysis set forth in the U.S. Department of Justice and Federal Trade Commission’s 2010 Horizontal Merger Guidelines. That analysis is known as the Hypothetical Monopolist Test and, it is important to note, is not a test of the existence of market power. Rather, it is a test—*one* test—as to whether two products are reasonably interchangeable.<sup>23</sup> In simplest terms, the test is as follows: Would a small-but-significant-non-transitory-increase-in-price (or “SSNIP” as it is often referred to) of one product above marginal cost cause customers to switch to another product? If the answer is “yes” the two products are considered reasonably interchangeable and the two products are considered in the same market.

For the Commission’s purposes at hand, perhaps the most important point to be made regarding the Merger Guidelines is that this test is clearly one-directional. It determines whether, in customers’ minds, two goods or services are reasonably interchangeable. It does not determine that they are not reasonably interchangeable. The Guidelines themselves acknowledge this: “*The hypothetical monopolist test ensures that markets are not defined too narrowly, but it does not lead to a single relevant market.*”<sup>24</sup> The Guidelines’ authors could have easily written that sentence as “...*the test ensures that markets are not defined too narrowly or too broadly...*” but they chose not to. In other words, the test helps to understand whether a product should be included in the definition of a market, but it does not demonstrate or prove that a product should be excluded from the definition of a market.

---

<sup>23</sup> See Merger Guidelines, pages 8-9: “The Agencies use the hypothetical monopolist test to identify a set of products that are reasonably interchangeable with a product sold by one of the merging firms.”

<sup>24</sup> DOJ/FTC Horizontal Merger Guidelines page 9.

The importance of this point cannot be overstated, because the potential for misinterpretation is significant. A casual observer might (erroneously) conclude that if a small price increase does *not* drive customers from one product to another then the two products are *not* reasonably interchangeable, and not in the same market. Such a conclusion would be fundamentally flawed. In fact, this potential for misapplication of the guidelines is so well known that it has even been pointed out that—based on misinterpretation of the Merger Guidelines—it is possible to conclude that Coke and Pepsi do not compete with each other, and would not be considered in the same market.<sup>25</sup> Such a conclusion would undoubtedly come as a something of a surprise to Coke and Pepsi.

Economists know that effective competition occurs on many levels and across many dimensions, not just on price. These dimensions include perceived product differentiation, brand loyalty, perceived quality differences, packaging, convenience, and more. In the case of voice service in Minnesota, customers may choose one provider over another for multiple reasons. But in the Merger Guideline’s Hypothetical Monopolist Test *price* is the only factor that is considered. That is why the Guidelines are of no use at all for examining effective competition for voice service in Minnesota.

For example, when a voice customer in Minnesota (or anywhere) makes a decision to replace wireline voice services with wireless voice service he or she is weighing the relative costs and benefits of each service, which extend well beyond price. The “costs” of wireline service include a lack of mobility, a lack of convenient bundling with other services (such as mobile Internet access), possibly additional charges for long-distance calls, etc. Alternately, the

---

<sup>25</sup> Mark A. Lemley and Mark P. McKenna; Is Pepsi Really a Substitute for Coke? Market Definition in Antitrust and IP. From The Georgetown Law Journal, Volume 100 Issue 6, pp. 2055-2117; copyright 2011.

“costs” of wireless service may include inferior voice quality, dropped calls, etc. But the voice customer makes his or her decision based on a portfolio of product characteristics, of which price is just one. This is true of every real-world competitive market. The purchaser of an airline ticket from Kansas City to Minneapolis has a choice of Delta Airlines or Southwest Airlines, and may well opt for a higher priced ticket on Delta if it means that a specific seat is reserved in the passenger's name. If Delta increased its prices by five percent and a significant number of its customers did not automatically flee to Southwest (because they still prefer a reserved seat) it does not mean that the two airlines do not compete with each other!

To turn to non-communications example, a favorite textbook example of non-price competition involves the fact that name-brand over-the-counter drugs sit side-by-side of market shelves next to their generic counterparts, such as Advil® and generic ibuprofen. The name brand often sells for nearly twice the price of the generic even though the two are not only reasonably interchangeable, they are functionally equivalent to the point of being chemically identical. The two drugs clearly operate in the same market and have the ability to take away business from each other, yet they would fail the DOJ/FTC Merger Guidelines Hypothetical Monopolist test.

**Market Power and the 2010 Qwest Arizona Petition for Forbearance.** The Commission has also requested that any discussion of market power address the analysis contained in the FCC's 2010 Memorandum Opinion and Order in Qwest's Petition for Forbearance regarding unbundled network elements in Arizona. From an economic perspective this request is admittedly curious; it appears to confuse (or, at a minimum, blur the lines between) the market conditions in two distinct markets: The market for retail service voice

service in Minnesota, and the market for the *inputs* that might or might not be used to provide that retail voice service.

Qwest's Petition for Forbearance was a request to be relieved from the obligation to provide unbundled network elements (UNEs) in the Phoenix metropolitan area. The obligation to provide UNEs has historically been viewed as one way of lowering barriers to entry into the retail market for voice service. And the existence of barriers to entry—in *any* market—create a situation wherein firms in the market might be in a position to exercise significant market power. The FCC, in its 2010 Order, ruled that nothing in that record indicated that such barriers to entry had been lowered in the Phoenix metropolitan area.<sup>26</sup>

The situation currently before the Commission could not be more different, for two specific reasons: First, CenturyLink is not requesting forbearance from the provision of UNEs in Minnesota. Consequently, even if the Commission believes that barriers to entry still exist in the market for voice service (a belief that the market data does not support), nothing in this proceeding is suggesting that unbundled network elements should no longer be available. Second, the data provided by Mr. Brigham shows that, in the overwhelming majority of its wire centers, CenturyLink provides voice service to less than 50% of voice customers. It is simply impossible to conclude, based on economic logic, that alternate providers face a barrier to entry in a market in which they have captured the majority of the market share!

It is worth noting that, in the Arizona Forbearance matter, the “market” at issue was incorrectly defined as a wireline market. The reason this is an incorrect definition is because this involves a technological distinction (wireline v. wireless) and, as discussed above, *economists do not define markets based on technology*. DVD rentals and movie tickets are products in the same

---

<sup>26</sup> FCC Memorandum Opinion and Order, Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160 (c) June, 2010; paragraph 98.

market.<sup>27</sup> So are DVDs and Internet downloads.<sup>28</sup> Train rides and air flights are products in the same market.<sup>29</sup> Motor scooters and bicycles are products in the same market.<sup>30</sup> And in 2014, wireline voice service and wireless voice service are products in the same market. This is discussed in the following section. As stated above, for two products to serve as competitive substitutes, all that is necessary is that they be capable of fulfilling the same customer demand and that they have the ability to take away significant amounts of business from each other. From an economic perspective, the technology used to accomplish this is irrelevant.

### **Wireless and Wireline Local Service: Complements or Substitutes**

The Commission also requested comment and evidence as to whether wireline service acts as a substitute for—or a complement to—wireline local service. On this question the economic principles are absolutely clear: two goods or services are *complements* if a reduction in the price of one good leads to an increase in the demand (or quantity demanded) of both goods.<sup>31</sup> A simple but enlightening example (often used in economics classrooms) is tortilla chips and salsa; a price reduction on “chips” incents consumers, on average, to purchase a larger quantity of chips and a larger quantity of the accompanying salsa.

With regard to wireless and wireline service, it is well-established that the price of wireless service has declined dramatically over the past 15 years. The Bureau of Labor Statistics, in its calculation of the consumer price index (CPI), has tracked the price of wireless service since 1997. The graph below uses publicly available data from the BLS website to display the decline in the price of wireless calling in the CPI since the turn of the century.

---

<sup>27</sup> Baumol and Blinder (see footnote 21), page 119.

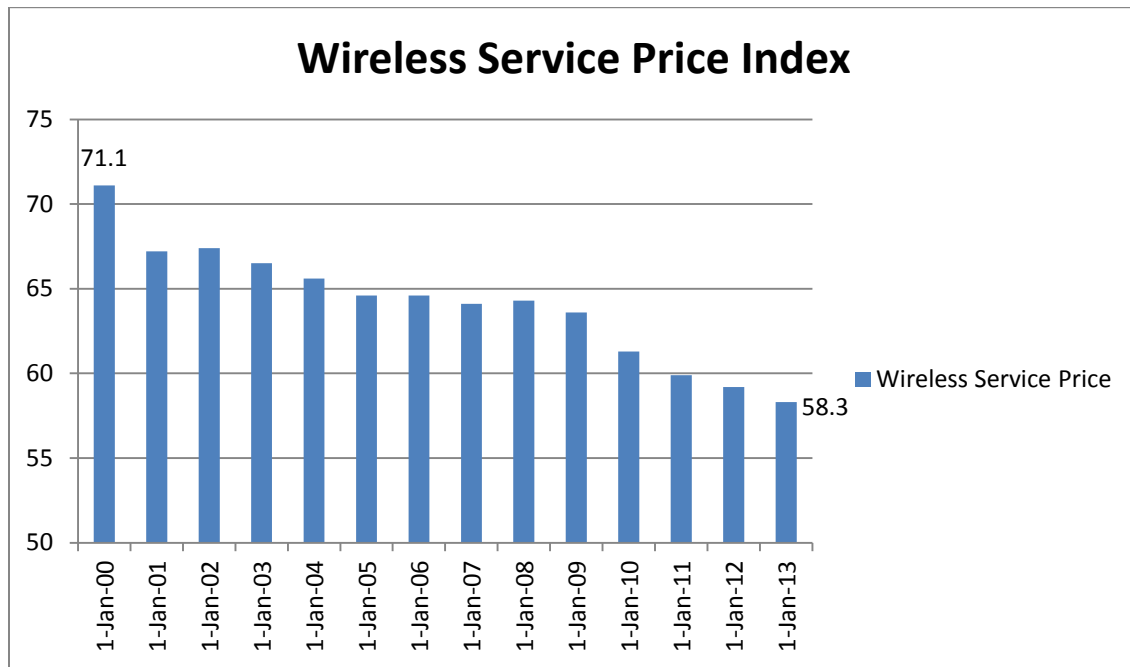
<sup>28</sup> Irvin P. Tucker, *Survey of Economics*, 7<sup>th</sup> edition, South-Western Publishers, page 56.

<sup>29</sup> Krugman and Wells (see footnote 9), page 71.

<sup>30</sup> Baumol and Blinder (see footnote 21), page 119.

<sup>31</sup> Mankiw (see footnote 17) page 70-71, Krugman (see footnote 9) page 69.

Because the CPI measures changes in relative price, the initial price (from 1997) is indexed at “100”.<sup>32</sup>



Not surprisingly, given this reduction in prices, over this same time period the prevalence of wireless subscribers in the marketplace has skyrocketed, from approximately 126 million subscribers in 2001 to over 300 million in 2013.<sup>33</sup>

Returning to our economic fundamentals, any claim that wireless service and wireline service are *complementary* in nature would require the following: During the same time period as this price decrease for wireless, wireline service would need to exhibit a similar (or at least a related) increase in demand as that enjoyed by wireless service. Of course, such an increase in demand did not occur; wireline service exhibited a massive *reduction* in demand over the same

<sup>32</sup> Data available at [www.bls.gov](http://www.bls.gov)

<sup>33</sup> 16<sup>th</sup> FCC Mobile Report, available at [www.fcc.gov](http://www.fcc.gov)

time period, a reduction that is well documented.<sup>34</sup> In summary, wireless and wireline service do not act as complements in the communications marketplace.

The evidence is equally compelling that wireless and wireline services *do* function as substitutes. In July of this year the Center for Disease Control issued the most recent version of its well-known National Institute of Health Interview Survey report which documents, among other things, the prevalence of wireless-only households. According to that report, as of December 2013 approximately 41% of U.S. households were categorized as “wireless only” households.<sup>35</sup> That 41% represents an increase from approximately 12.8% of households categorized as “wireless only” in 2006.<sup>36</sup> Given the fact that *wireline* penetration peaked near 100% of households around the turn of the millennium<sup>37</sup>, it is logical to conclude that wireless service effectively *replaced* wireline service in that 41% of households. When one service effectively replaces another service it is—*by definition*—a substitute.

Even more compelling, recent econometric analysis has shown that the cross-price elasticity between wireless and wireline service is both positive and statistically significant<sup>38</sup>, providing quantitative evidence that the two services act as substitutes in the marketplace. A recent study published by economist Kevin Caves in *Telecom Policy* used state-level panel data

---

<sup>34</sup> This is shown in Mr. Brigham’s affidavit.

<sup>35</sup> CDC NHIS Survey 2014 available at <http://www.cdc.gov/nchs/nhis.htm>

<sup>36</sup> CDC NHIS Survey 2007, available at <http://www.cdc.gov/nchs/nhis.htm>

<sup>37</sup> Source: FCC Local Competition Report 1999, available at [www.fcc.gov](http://www.fcc.gov)

<sup>38</sup> In very simple terms, econometrics is a discipline that uses statistical methods to determine relationships among economic variables, and statistical significance is a way of determining whether the data shows that two variables are related to each other strongly, weakly, or not at all. Again, in simplest terms, the smaller the level of significance the stronger the evidence of a relationship. For example, an econometric model that shows statistical significance at a 1% level is producing a stronger result than another model showing statistical significance at a 5% level, while both are producing stronger results than a model showing statistical significance at a 10% level.

to estimate the cross-price elasticity between wireless and wireline service. Caves found, using data that spanned from 2001 to 2008, that...

“Wireline and wireless voice service are economic substitutes and changes in relative prices drive economically significant intermodal substitution. Specifically ... a one percent decrease in the price of wireless service leads to a decline in the demand for traditional wireline service of approximately 1.22 to 1.28%. These figures substantially exceed prior econometric estimates of the wireline/wireless cross price elasticity.”

The excerpt is notable for two specific reasons. First, Caves’ analysis also found that the cross-price impact ran the other direction as well: That a one percent increase in the price of wireline services translated to a .46%-.53% increase in the demand for wireless service, and that this effect was *statistically significant at the 1% level*.<sup>39</sup> Second, Caves’ analysis stopped with 2008 data and—as the graph above shows—significant reductions in the average price of wireless calling occurred after 2008. If we takes Caves’ last statement at face value (paraphrasing: “the more current the data is, the larger the cross-price impacts will be”) this suggests that an analysis conducted using current (2014) data would produce even stronger results!

In short, there is simply no evidence to suggest that—in 2014—wireless and wireline service operate as complementary products in the marketplace. But there is compelling evidence that the two act as substitutes. It is also worth noting that—as mentioned above in the segment on effective competition—it is not necessary that *all* customers in a market view two products as substitutes for them to act as competitive substitutes. The standard applied is whether or not two products have the ability to take away *significant* amounts of business from each other. There is no requirement that two products must have the ability to take away *all* business from each other if they are to be deemed substitutes and operate in the same market.

---

<sup>39</sup> Page 19



**Economic Principles and the Role of Regulation.** As stated above, the first purpose of this affidavit is to provide a framework, based on sound economic principles, for evaluating the competitive data provided by Mr. Brigham. Economic principles tell us that two goods are competitive substitutes if they have the ability to take away significant amounts of business from each other. Consider four incontrovertible facts:

1. CenturyLink (and its predecessor companies) were one-time monopolists in the provision of voice service in Minnesota, enjoying near 100% household penetration and (equivalently) near 100% market share.
2. Voice service has maintained its popularity; as Mr. Brigham's data shows, the size of the market for voice service has increased in Minnesota and subscribership to voice service has remained stable.
3. The portion of the voice market that purchases service from CenturyLink has not just eroded significantly, it has eroded dramatically.
4. These voice customers have either replaced CenturyLink voice service with service from other providers or have chosen to be served by an alternate provider. In either case, by definition, they constitute significant competitive losses for CenturyLink. The market for voice service in Minnesota is effectively competitive.

These four incontrovertible facts lead directly to the second purpose of this affidavit, which is to discuss the proper role of regulation in the market for voice service. The specific question before the Commission is one involving service quality standards, yet a broader perspective is needed.

Simply stated, regulation historically has served as a substitute for the disciplining effects of competition.<sup>40</sup> In the real-world (as opposed to textbooks) competition does not eliminate all market power but it limits a firm's ability to exercise significant market power.<sup>41</sup> Competition does not guarantee economic efficiency but it moves firms toward efficiency.<sup>42</sup> Competition does not guarantee that all consumers' preferences are satisfied but it moves firms toward a state where production represents consumers' preferences (a condition known as *allocative efficiency*.)<sup>43</sup> In the absence of competition, regulation has served as a means of moving toward these same goals.

As an economic matter, however, if a market is open to competition and exhibits effective competition then retail regulation is both 1) *unnecessary* and 2) *undesirable*. It is unnecessary because markets function much more effectively and efficiently to protect, serve and respond to customers than regulators can, despite regulators' best efforts and best intentions. Economist Jerry Ellig has written,

“In addition to altering incentives... economic regulation short-circuits the market's normal trial and error process. Real-world competition is a dynamic process of trial-and-error. The purpose of competition is to reveal what services, prices, and costs are possible.”<sup>44</sup>

---

<sup>40</sup> “The main reason proposed for regulating telecommunications has been that a desirable competitive outcome could not be achieved by market forces... In general, regulation should be used only when it is clear that deregulated markets will fail.” Nicholas Economides.

"Telecommunications Regulation: An Introduction" *The Limits and Complexity of Organizations*. Ed. Richard R. Nelson. New York: Russell Sage Foundation Press, 2005. 48-76.

<sup>41</sup> “The only firms that do not have market power are firms in perfectly competitive markets.” Hubbard and O'Brien, (see footnote 8) page 475.

<sup>42</sup> “Some loss of economic efficiency occurs in the market for nearly every good or service.” Hubbard and O'Brien, (see footnote 8) page 475.

<sup>43</sup> Hubbard and O'Brien, (see footnote 8) page 10.

<sup>44</sup> Jerry Ellig, Costs and Consequences of Federal Telecommunications Regulation, *Federal Communications Law Journal*, Volume 50 Number 1.

And it is undesirable because artificial regulatory constraints—however well-intended—are not harmless, not costless, and not neutral in competitive markets. Economists Paul Joskow and Nancy Rose have written:

“The costs of unnecessary regulation derive not only from market interference...but from the institutional imperfections of the regulatory process. These latter costs derive from the fact that regulators are unlikely to be perfectly informed and regulation is unlikely to be costlessly implemented and enforced.”<sup>45</sup>

With regard to pricing (which, admittedly, is not the issue at hand before the Commission) retail regulation essentially ties a firm’s hands in being able to quickly respond to customers’ changing tastes and preferences, changing cost conditions, changing market forces and changing competitive offerings. This concept is captured in the Ellig quote above. With regard to the imposition of service quality standards, which is the issue at hand before the Commission, retail regulation imposes two significant costs. 1) It essentially imposes regulators’ preferences on the firm decisions rather than consumers’ preferences, and 2) It creates competitive distortions when not applied to all competitors equally. These two costs are often interrelated.

Consider, for example, a typical regulatory requirement that a certain percentage of “Help Desk” calls be answered within a certain time period. The literal cost of meeting such a standard involves the costs of staffing and training, and these costs—by definition—must be passed on to end users. Yet the market mechanism is much more effective and efficient than regulators are at determining whether these costs truly reflect consumers’ preferences. Many customers may prefer a slightly longer hold time if it comes with a slightly lower monthly recurring charge!

---

<sup>45</sup> “The Effects of Economic Regulation” in Handbook of Industrial Organization, Volume 2, North-Holland Publishers, 1989.

And unless these same costs are imposed on all providers in the market, the standards create an uneven playing field and a true competitive disadvantage. Returning to Ellig:

“Ideal economic regulation benefits customers by reducing prices to competitive levels or correcting for other market failures. **In reality, economic regulation may harm customers by holding prices below competitive levels, raising prices above competitive levels, increasing costs, reducing innovation, or turning wealth transfers into social waste**” (emphasis supplied).


Considering the economic facts that regulation is not costless and not innocuous, the proper role of regulation in an effectively competitive market is to *facilitate* that competition; to ensure that the market is open to entry, to ensure that the playing field is level, and then to allow the market to work. As Dr. Economides (footnote 40) stated quite succinctly, “In general, regulation should be used only when it is clear that deregulated markets will fail.” As the Commission considers the specific question at hand—a question of performance quality standards that had their origins in a monopoly world—such an approach would be in the best interest of all market participants: consumers and producers.

This concludes my affidavit.



Dr. Brian K. Staihr

Subscribed and sworn to before me  
this 4<sup>th</sup> day of December, 2014.

  
Notary Public

6/17/18