

# **NORTH METRO TELECOMMUNICATIONS COMMISSION MEETING**

February 20, 2019  
6:00 p.m.

**SPRING LAKE PARK CITY OFFICES**  
**1301 81<sup>st</sup> Avenue NE**  
**Spring Lake Park, Minnesota**

## **AGENDA**

1. CALL TO ORDER/ROLL CALL
2. CONSENT AGENDA **pp. 1-16**
  - 2.1. Approval of the minutes of the regular meeting, December 19, 2018
  - 2.2. Approval of the December and January financial reports and bill lists
3. CITIZENS TO BE HEARD
4. NORTH METRO TV REPORT **pp. 17--30**
  - 4.1. Monthly update
5. REPORT OF EXECUTIVE COMMITTEE **pp. 31-33**
  - 5.1. Franchise Fees Returned to Cities
  - 5.2. Executive Committee Recommendation
6. REPORT OF OPERATIONS COMMITTEE **p. 34**
7. REPORT OF LEGAL COUNSEL
  - 7.1. Monthly Report
8. REPORT OF COMCAST
9. REPORT OF CENTURYLINK
10. NEW BUSINESS
11. OLD BUSINESS
12. REPORT OF DIRECTORS
13. COMMUNICATIONS **pp. 35-75**
14. ADJOURN

# **NORTH METRO TELECOMMUNICATIONS COMMISSION**

## **UNAPPROVED MINUTES**

**Commission Meeting – December 19, 2018**

### **CALL TO ORDER**

Chair D. Swanson called the regular meeting of the North Metro Telecommunications Commission to order at 6:05 p.m. at the Spring Lake Park city offices.

### **ROLL CALL**

**Directors Present:** Dick Swanson; Blaine, Cindy Hansen; Spring Lake Park, Jennifer Rauner; Circle Pines, Steve King; Centerville, Dale Stoesz; Lino Lakes

**Directors Absent:** Al Parranto; Ham Lake, Mike Murphy; Lexington

**Others Present:** Heidi Arnson; Executive Director, Mike Bradley; Legal Counsel

**Comcast Rep:**

**CenturyLink Rep:**

### **CONSENT AGENDA**

- **Minutes, Bill List, Financial Reports**

The October 17, 2018 minutes, and the October and November bill lists and financial reports were approved as presented. **Motion for approval made by C. Hansen. Second, D. Stoesz. Motion passed unanimously.**

### **CITIZENS TO BE HEARD**

None present.

### **REPORT OF NORTH METRO TV**

H. Arnson reviewed the North Metro TV report as presented in the packet. A summary was also given of activities for the months of November and December. Topics included:

- There were three fairly complex live productions in November. They were the Live Election Night Coverage, the Sports Den Fall Finale, and the annual Blaine High School Veterans Day program. All of them required a lot of planning, coordination and help from most of staff and lots of volunteers.

- The City of Circle Pines is now officially upgraded to HD. Video Engineer, Matt Waldron, worked closely with Z Systems and City staff on the upgrade. There have been a few bugs to work out, but the video looks great.
- The building roof has been replaced. Install and clean-up were completed a week before the deadline. Giertsen provided a folder that included copies of all the permits, pictures of the tear-out and replacement, and a 10 year warranty on workmanship.
- It has been a very busy month for home movie transfers. The edit suite that is used to make the transfers was used 100% of the time it was available in November and it appears the stats will be the same for December.

#### **REPORT OF EXECUTIVE COMMITTEE/OPERATIONS COMMITTEE**

D. Stoesz reported on the following items:

- An update was given regarding CenturyLink's franchise issues. Legal Counsel and staff had met with CenturyLink's Corporate Counsel to discuss possible franchise violations and to determine a resolution. Since CenturyLink does not intend to continue offering the Prism TV service, it was agreed that it was in the best interest of both parties to draw up a document outlining an orderly exit from the market. CenturyLink has sent a first draft of a settlement agreement. Legal Counsel has sent a response to the first draft. Once a settlement agreement is finalized it will likely need to be forwarded to Cities for their approval.
- Comments regarding the FCC's franchise fee Further Notice of Proposed Rulemaking were filed by Legal Counsel on November 14th. Reply Comments were filed on December 14th. The FCC will take the matter under consideration and may or may not issue a final Report and Order. The Report and Order will state an effective date, likely 90 days from the date it is released and published in the Federal Register. The Report and Order may be appealed and a stay would likely be requested. If a stay is granted, franchise fees would be calculated at the status quo through the appeal process. Otherwise, the Report and Order would be effective pending the appeal.
- It was recommended that the 2018 budget be adjusted to account for the unexpected building capital and building maintenance expenses. The money would come from the building reserve fund.

**MOTION:** To adjust the 2018 building capital and building budget line-items by a total of \$80,000. **Motion made by D. Stoesz. Second, C. Hansen. Motion passed unanimously.**

**REPORT OF LEGAL COUNSEL**

M. Bradley reported on the following items:

- A reply has been sent to CenturyLink regarding their first draft of a settlement agreement. We are waiting for a response, from CenturyLink, to the recommended changes to the first draft.
- Reply comments regarding the FCC's Second Further Notice of Proposed Rule Making have been filed. We will now wait to hear the response of the FCC.

**REPORT OF COMCAST**

No report was presented.

**REPORT OF CENTURYLINK**

No report was presented.

**NEW BUSINESS**

The Executive Committee had recommended that the January Executive and Commission meetings be canceled.

**MOTION:** To cancel the January Executive and Commission meetings. **Motion made by D. Stoesz. Second, C. Hansen. Motion passed unanimously.**

**OLD BUSINESS**

No old business was presented.

**REPORT OF DIRECTORS**

It was Commission Member S. King's final meeting. Chair D. Swanson, on behalf of the Commission, thanked him for his year's of service.

**ADJOURN**

The meeting was adjourned at 6:14 p.m. **The motion to adjourn was made by S. King. Second, C. Hansen. Motion approved.**

The next meeting of the NMTC will be held on **Wednesday, February 20, 2019 at 6:00 p.m.** at the city offices of Spring Lake Park.

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Dale Stoesz; Secretary, NMTC

**NORTH METRO TELECOMMUNICATION  
BILL LIST**

JANUARY 2019

Date	Check #	Payee	Amount
JANUARY	COMBINED	PAYROLL	39,771.42
JANUARY	COMBINED	IRS/US PAYABLE	12,724.53
JANUARY	COMBINED	MN REVENUE PAYABLE	2,251.67
JANUARY	COMBINED	PERA PAYABLE	7,306.55
JANUARY	COMBINED	PEACHTREE	40.80
JANUARY	COMBINED	DISCOVERY BENEFITS	22,932.50
13407 - 1ST QTR	1/14/19	Michael A. Murphy	135.00
13419	1/3/19	Richard D. Larson	447.25
13420	1/3/19	Comcast	61.08
13421	1/7/19	Brian K. Carlson	2,000.00
13422	1/7/19	Ian R. Cobb	500.00
13423	1/7/19	DVS RENEWAL	276.00
13424	1/7/19	DVS RENEWAL	209.00
13425	1/7/19	Metro North Chamber of Comm.	454.00
13426	1/7/19	INTERSTATE COMPANIES, INC	1,284.94
13427	1/7/19	Lakes Marketing Group Inc	398.00
13428	1/7/19	Bradley Law, LLC	9,256.25
13429	1/7/19	Metro Sales, Inc.	669.00
13430	1/7/19	Corporate Mechanical	2,222.44
13431	1/7/19	Grass Hopper Lawn & Snow	700.00
13432	1/12/19	INTERSTATE COMPANIES, INC	42.58
13433	1/16/19	Floyd Security / SRSI	134.55
13434	1/23/19	Z Systems	22,738.63
13435	1/23/19	MN Assoc Comm Tele Admin	2,625.00
13436	1/23/19	Nat. Assn Officers & Advisors	2,070.00
EFILE	1/3/19	Authorize.Net	27.10
EFILE	1/16/19	Chase Visa Card Services	3,069.84
EFILE	1/2/19	Virtual Merchant Credit Card	32.76
EPAY-01	1/2/19	POPP TELECOM	210.49
EPAY-02	1/3/19	T-Mobile	102.16
EPAY-03	1/3/19	Comcast	285.92
EPAY-04	1/4/19	Principal Financial Group	431.99
EPAY-05	1/6/19	Comcast Business 100M/100M	756.78
EPAY-06	1/7/19	Holiday Station Stores	73.30
EPAY-07	1/8/19	SA Fleet-Wex Bank	94.72
EPAY-08	1/14/19	Comcast	54.16
EPAY-09	1/12/19	AT&T Wireless	387.62
EPAY-10	1/14/19	Republic Services	190.67
EPAY-11	1/15/19	CenterPoint Energy	394.19
EPAY-12	1/15/19	U.S. Bank Card Service	1,260.32
EPAY-13	1/22/19	HealthPartners	10,876.91
EPAY-14	1/26/19	Connexus Energy	1,858.74
DECEMBER SALES TAX	1/13/19	MN Dept. of Revenue	84.00

**151,442.86**

# North Metro Telecommunications Commission

## Balance Sheet

January 31, 2019

### ASSETS

#### Current Assets

Cash - Checking Account	\$	2,881,324.61	
Petty Cash		150.00	
A/R - NMTC		168,868.06	
Prepaid Insurance - NMTC		14,543.48	
Total Current Assets			3,064,886.15

#### Property and Equipment

Office Equipment - NMTC	1,285,000.85	
Accum Deprec - NMTC	(1,996,000.79)	
Bond Equipment 2016	1,985,000.00	
Building-Polk/125	1,503,204.17	
Land-Polk/125	225,700.00	
Total Property and Equipment		3,002,904.23

#### Other Assets

Deferred Out Related/Pension	163,031.00	
Total Other Assets		163,031.00

Total Assets	\$	6,230,821.38
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### LIABILITIES AND CAPITAL

#### Current Liabilities

A/P - NMTC	\$	1,260.00	
Accrued Payroll Taxes & W/H's		449.54	
PERA - REFUNDS		310.09	
Garnished Wages		86.40	
Garnished Wages		(86.40)	
PERA PAYABLE - PRIOR		(768.59)	
Accrued Vacation		97,434.58	
Accrued Wages		33,681.52	
Franchise Fee App		991,433.01	
Due to City of Blaine		762,119.00	
Due to City of Centerville		47,261.00	
Due to City of Circle Pines		67,778.00	
Due to City of Ham Lake		197,534.00	
Due to City of Lexington		25,328.00	
Due to City of Lino Lakes		233,475.00	
Due to City of Spring Lake Par		81,504.00	
Deferred In Related/Pension		132,827.00	
Total Current Liabilities			2,671,626.15

#### Long-Term Liabilities

Net Pension Liability	<u>632,009.00</u>	
Total Long-Term Liabilities		632,009.00

Total Liabilities			3,303,635.15
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#### Capital

Net Equity	249,411.04	
Net Equity - Media Ctr	(206,243.34)	
Net Equity - NMTC	2,517,656.37	
Net Income	<u>366,362.16</u>	
Total Capital		2,927,186.23

Total Liabilities & Capital	\$	6,230,821.38
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# North Metro Telecommunications Comm

## Cash Receipts Journal

For the Period From Jan 1, 2019 to Jan 31, 2019

Date	Transaction Ref	Line Description	Debit Amnt	Credit Amnt
1/4/19	DECEMBER PAYPAL	PAYPAL		
1/10/19	TAPE DUBS-CASH	TAPE DUBS-CASH Miscellaneous receipts	230.00	230.00
1/10/19	TAPE DUBS-CHECKS	TAPE DUBS-CHECKS Miscellaneous receipts	50.00	50.00
1/10/19	COMP REIMB-LEXINGTON	COMPUTER REIMBURSEMENT-LEXINGTON Miscellaneous receipts	83.95	83.95
1/22/19	4TH QTR FRAN FEES	4TH QTR FRAN FEES CenturyLink-Franchise	7,269.57	7,269.57
1/22/19	4TH QTR PEG FEES	4TH QTR PEG FEES CenturyLink-Peg	4,163.47	4,163.47
1/23/19	4TH QTR PEG FEES	4TH QTR PEG FEES Comcast-PEG Fees	194,812.25	194,812.25
1/23/19	4TH QTR FRAN FEES	4TH QTR FRAN FEES Comcast-Franchise	318,677.28	318,677.28
1/26/19	JAN CC SALES-AUTH	JANUARY CREDIT CARD SALES-AUTHORIZE.NET JANUARY CREDIT CARD SALES-AUTHORIZE.NET-FEES Credit Card Sales	6.02 33.98	40.00
1/27/19	JAN CC SALES-VM	CREDIT CARD SALES - VIRTUAL MERCHANT Credit Card Sales	1,124.00	1,124.00
1/31/19	INTEREST	INTEREST-COMMISSION CHECKING INTEREST - COMMISSION	4,808.67	4,808.67
			<u>531,259.19</u>	<u>531,259.19</u>



# North Metro Telecommunications Comm

## Check Register

For the Period From Jan 1, 2019 to Jan 31, 2019

Filter Criteria includes: 1) Accounts Payable only. Report order is by Date.

Check #	Date	Payee	Amount
EFILE	1/1/19	Discovery Benefits	22.50
EPAY-01	1/2/19	POPP TELECOM	210.49
EFILE	1/2/19	Discovery Benefits	1,220.00
EFILE	1/2/19	Virtual Merchant Credit Card	32.76
EPAY-03	1/3/19	Comcast	285.92
EPAY-02	1/3/19	T-Mobile	102.16
13419	1/3/19	Richard D. Larson	447.25
13420	1/3/19	Comcast	61.08
EFILE	1/3/19	Authorize.Net	27.10
PEACH	1/4/19	Peachtree/Sage Software	20.40
EFILE	1/4/19	MN Dept. of Revenue	1,066.52
EFILE	1/4/19	Public Employees Retirement	3,498.06
EFILE	1/4/19	IRS/US BANK	5,714.25
EPAY-04	1/4/19	Principal Financial Group	431.99
EFILE	1/5/19	Discovery Benefits	20,000.00
EPAY-05	1/6/19	Comcast Business 100M/100M	756.78
13421	1/7/19	Brian K. Carlson	2,000.00
13422	1/7/19	Ian R. Cobb	500.00
13423	1/7/19	DVS RENEWAL	276.00
13424	1/7/19	DVS RENEWAL	209.00
13425	1/7/19	Metro North Chamber of Comm.	454.00
13426	1/7/19	INTERSTATE COMPANIES, INC	1,284.94
13427	1/7/19	Lakes Marketing Group Inc	398.00
13428	1/7/19	Bradley Law, LLC	9,256.25
13429	1/7/19	Metro Sales, Inc.	669.00
13430	1/7/19	Corporate Mechanical	2,222.44
13431	1/7/19	Grass Hopper Lawn & Snow	700.00
EPAY-06	1/7/19	Holiday Station Stores	73.30
EPAY-07	1/8/19	SA Fleet-Wex Bank	94.72

# North Metro Telecommunications Comm

## Check Register

For the Period From Jan 1, 2019 to Jan 31, 2019

Filter Criteria Includes: 1) Accounts Payable only. Report order is by Date.

Check #	Date	Payee	Amount
EPAY-09	1/12/19	AT&T Wireless	387.62
13432	1/12/19	INTERSTATE COMPANIES, INC	42.58
DECEMBER SALES TAX	1/13/19	MN Dept. of Revenue	84.00
EPAY-10	1/14/19	Republic Services	190.67
EPAY-08	1/14/19	Comcast	54.16
13407 - 1ST QTR	1/14/19	Michael A. Murphy	135.00
EPAY-11	1/15/19	CenterPoint Energy	394.19
EPAY-12	1/15/19	U.S. Bank Card Service	1,260.32
EFILE	1/16/19	Chase Visa Card Services	3,069.84
EFILE	1/16/19	Discovery Benefits	1,220.00
13433	1/16/19	Floyd Security / SRSI	134.55
PEACH	1/18/19	Peachtree/Sage Software	20.40
EFILE	1/18/19	MN Dept. of Revenue	1,064.18
EFILE	1/18/19	Public Employees Retirement	3,491.51
EFILE	1/18/19	IRS/US BANK	5,701.84
EPAY-13	1/22/19	HealthPartners	10,876.91
13434	1/23/19	Z Systems	22,738.63
13435	1/23/19	MN Assoc Comm Tele Admin	2,625.00
13436	1/23/19	Nat. Assn Officers & Advisors	2,070.00
EPAY-14	1/26/19	Connexus Energy	1,858.74
EFILE	1/30/19	Discovery Benefits	470.00
EFILE	1/31/19	Public Employees Retirement	316.98
EFILE	1/31/19	MN Dept. of Revenue	120.97
EMPL	1/31/19	IRS/US BANK	1,308.44
<b>Total</b>			<b><u>111,671.44</u></b>

# North Metro Telecommunications Comm

## General Journal

For the Period From Jan 1, 2019 to Jan 31, 2019

Date	Reference	Trans Description	Debit Amt	Credit Amt
1/1/19	ACCRUED VAC/SIC/COMP	ACCRUED VAC/SICK/COMP ACCRUED VAC/SICK/COMP	92,589.55	92,589.55
1/1/19	ACCRUED WAGES	ACCRUED WAGES ACCRUED WAGES	14,463.60	14,463.60
1/30/19	ACCRUED DEPRECIATION	ACCRUED DEPRECIATION ACCRUED DEPRECIATION	12,900.00	12,900.00
1/30/19	ACCRUED VAC/SIC/COMP	ACCRUED VAC/SICK/COMP ACCRUED VAC/SICK/COMP	97,434.58	97,434.58
1/30/19	ACCRUED WAGES	ACCRUED WAGES ACCRUED WAGES	10,166.72	10,166.72
	<b>Total</b>		<b>227,554.45</b>	<b>227,554.45</b>

**NORTH METRO TELECOMMUNICATION  
BILL LIST**

DECEMBER 2018

Date	Check #	Payee	Amount
DECEMBER	COMBINED	PAYROLL	36,752.92
DECEMBER	COMBINED	IRS/US PAYABLE	12,155.19
DECEMBER	COMBINED	MN REVENUE PAYABLE	2,189.19
DECEMBER	COMBINED	PERA PAYABLE	6,854.42
DECEMBER	COMBINED	PEACHTREE	44.20
DECEMBER	COMBINED	DISCOVERY BENEFITS	572.50
13259A	12/28/18	Z Systems	16,721.35
13401	12/3/18	Richard D. Larson	426.50
13402	12/3/18	Rick Larson	5.87
13403	12/3/18	Corporate Mechanical	824.79
13404	12/3/18	Artists del Norte	100.00
13405	12/3/18	Steven D. King	135.00
13406	12/3/18	Alan M. Parranto	135.00
13407	12/3/18	Michael A. Murphy	135.00
13408	12/3/18	Dale K. Stoesz	135.00
13409	12/3/18	Cynthia A. Hansen	135.00
13410	12/3/18	Jennifer Rauner	135.00
13411	12/12/18	Michele J. Silvester	18.53
13412	12/12/18	Commercial Steam Team	478.98
13413	12/17/18	Rusty S. Ray	44.96
13414	12/17/18	Kenton Kipp	98.10
13415	12/17/18	Heidi Arnson	104.33
13416	12/17/18	Corporate Mechanical	1,177.38
13417	12/17/18	Terry Tronson	174.62
13418	12/19/18	Michele J. Silvester	53.18
EFILE	12/1/18	Authorize.Net	29.12
EFILE	12/16/18	Chase Visa Card Services	1,389.49
EFILE	12/19/18	Chase Visa Card Services	1,059.81
EFILE	12/1/18	Virtual Merchant Credit Card	33.52
EPAY-01	12/1/18	Principal Financial Group	414.27
EPAY-02	12/2/18	POPP TELECOM	210.49
EPAY-03	12/3/18	T-Mobile	102.16
EPAY-04	12/3/18	Comcast	285.92
EPAY-05	12/12/18	AT&T Wireless	387.62
EPAY-06	12/12/18	SA Fleet-Wex Bank	164.84
EPAY-07	12/12/18	U.S. Bank Card Service	1,545.80
EPAY-08	12/14/18	CenterPoint Energy	52.48
EPAY-09	12/14/18	Republic Services	162.60
EPAY-10	12/14/18	Comcast Business 100M/100M	756.78
EPAY-11	12/22/18	HealthPartners	10,876.91
EPAY-12	12/27/18	Connexus Energy	1,989.29
EPAY-P01	12/3/18	Richard R. Swanson	135.00
HSA correction	12/26/18	IRS/US BANK	51.86
HSA correction	12/26/18	MN Dept. of Revenue	10.16
NOVEMBER SALES TAX	12/12/18	MN Dept. of Revenue	111.00

**99,376.13**

# North Metro Telecommunications Commission

Balance Sheet  
December 31, 2018

## ASSETS

### Current Assets

Cash - Checking Account	\$ 2,501,514.30
Petty Cash	150.00
A/R - NMTC	168,868.06
Prepaid Insurance - NMTC	14,543.48

Total Current Assets 2,685,075.84

### Property and Equipment

Office Equipment - NMTC	1,285,000.85
Accum Deprec - NMTC	(1,983,100.79)
Bond Equipment 2016	1,985,000.00
Building-Polk/125	1,503,204.17
Land-Polk/125	225,700.00

Total Property and Equipment 3,015,804.23

### Other Assets

Deferred Out Related/Pension	163,031.00
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Total Other Assets 163,031.00

Total Assets \$ 5,863,911.07

## LIABILITIES AND CAPITAL

### Current Liabilities

A/P - NMTC	\$ 1,260.00
Accrued Payroll Taxes & W/H's	449.54
PERA - REFUNDS	310.09
Garnished Wages	86.40
Garnished Wages	(86.40)
PERA PAYABLE - PRIOR	(768.59)
Accrued Vacation	92,589.55
Accrued Wages	37,978.40
Franchise Fee App	991,433.01
Due to City of Blaine	762,119.00
Due to City of Centerville	47,261.00
Due to City of Circle Pines	67,778.00
Due to City of Ham Lake	197,534.00
Due to City of Lexington	25,328.00
Due to City of Lino Lakes	233,475.00
Due to City of Spring Lake Par	81,504.00
Deferred In Related/Pension	132,827.00

Total Current Liabilities 2,671,078.00

### Long-Term Liabilities

Net Pension Liability	632,009.00
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Total Long-Term Liabilities 632,009.00

Total Liabilities 3,303,087.00

### Capital

Net Equity	386,721.40
Net Equity - Media Ctr	(206,243.34)
Net Equity - NMTC	2,517,656.37
Net Income	(137,310.36)

Total Capital 2,560,824.07

Total Liabilities & Capital \$ 5,863,911.07

# North Metro Telecommunications Comm

## Cash Receipts Journal

For the Period From Dec 1, 2018 to Dec 31, 2018

Date	Transaction Ref	Line Description	Debit Amnt	Credit Amnt
12/5/1	NOVEMBER PAYPAL	NOVEMBER PAYPAL PAYPAL	95.90	95.90
12/18/	TAPE DUBS-CASH	TAPE DUBS-CASH Miscellaneous receipts	161.00	161.00
12/18/	TAPE DUBS-CHECKS	TAPE DUBS-CHECKS Miscellaneous receipts	282.00	282.00
12/18/	PROP INSC REFUND	PROPERTY/CASUALTY REFUND League of MN Cities	647.00	647.00
12/26/	DEC CC SALES-VM	DECEMBER CREDIT CARD SALES-VIRTUAL MERCHANT Credit Card Sales	747.00	747.00
12/27/	DEC CC SALES-AUTH	DECEMBER CREDIT CARD SALES-AUTHORIZE.NET DECEMBER CREDIT CARD SALES-AUTHORIZE.NET-FEES Credit Card Sales	2.32 77.68	80.00
12/28/	DEC CC SALES-AMEX	DECEMBER CREDIT CARD SALES-AMEX DECEMBER CREDIT CARD SALES-AMEX-FEES Credit Card Sales	0.78 19.22	20.00
12/29/	INTEREST	INTEREST-COMMISSION CHECKING INTEREST - COMMISSION	4,533.02	4,533.02
12/30/	PERA REFUND	PERA REFUND Public Employee Retirement	330.50	330.50
			<u>6,896.42</u>	<u>6,896.42</u>

# North Metro Telecommunications Comm

## Check Register

For the Period From Dec 1, 2018 to Dec 31, 2018

Filter Criteria Includes: 1) Accounts Payable only. Report order is by Date.

Check #	Date	Payee	Amount
EFILE	12/1/18	Discovery Benefits	22.50
EFILE	12/1/18	Authorize.Net	29.12
EFILE	12/1/18	Virtual Merchant Credit Card	33.52
EPAY-01	12/1/18	Principal Financial Group	414.27
EPAY-02	12/2/18	POPP TELECOM	210.49
EPAY-04	12/3/18	Comcast	285.92
EPAY-03	12/3/18	T-Mobile	102.16
13401	12/3/18	Richard D. Larson	426.50
13402	12/3/18	Rick Larson	5.87
13403	12/3/18	Corporate Mechanical	824.79
13404	12/3/18	Artists del Norte	100.00
EPAY-P01	12/3/18	Richard R. Swanson	135.00
13405	12/3/18	Steven D. King	135.00
13406	12/3/18	Alan M. Parranto	135.00
13407	12/3/18	Michael A. Murphy	135.00
13408	12/3/18	Dale K. Stoesz	135.00
13409	12/3/18	Cynthia A. Hansen	135.00
13410	12/3/18	Jennifer Rauner	135.00
EFILE	12/5/18	Discovery Benefits	370.00
PEACH	12/7/18	Peachtree/Sage Software	22.10
EFILE	12/7/18	Public Employees Retirement	3,413.06
EFILE	12/7/18	IRS/US BANK	5,818.85
EFILE	12/7/18	MN Dept. of Revenue	1,087.37
EPAY-05	12/12/18	AT&T Wireless	387.62
NOVEMBER SALES TA	12/12/18	MN Dept. of Revenue	111.00
EPAY-06	12/12/18	SA Fleet-Wex Bank	164.84
13411	12/12/18	Michele J. Silvester	18.53
13412	12/12/18	Commercial Steam Team	478.98
EPAY-07	12/12/18	U.S. Bank Card Service	1,545.80

# North Metro Telecommunications Comm

## Check Register

For the Period From Dec 1, 2018 to Dec 31, 2018

Filter Criteria includes: 1) Accounts Payable only. Report order is by Date.

Check #	Date	Payee	Amount
EPAY-09	12/14/18	Republic Services	162.60
EPAY-10	12/14/18	Comcast Business 100M/100M	756.78
EPAY-08	12/14/18	CenterPoint Energy	52.48
EFILE	12/16/18	Chase Visa Card Services	1,389.49
13413	12/17/18	Rusty S. Ray	44.96
13414	12/17/18	Kenton Kipp	98.10
13415	12/17/18	Heidi Arnson	104.33
13416	12/17/18	Corporate Mechanical	1,177.38
13417	12/17/18	Terry Tronson	174.62
EFILE	12/19/18	Discovery Benefits	180.00
EFILE	12/19/18	Chase Visa Card Services	1,059.81
13418	12/19/18	Michele J. Silvester	53.18
PEACH	12/21/18	Peachtree/Sage Software	20.40
EFILE	12/21/18	Public Employees Retirement	3,370.58
EFILE	12/21/18	IRS/US BANK	5,738.38
EFILE	12/21/18	MN Dept. of Revenue	1,072.19
EPAY-11	12/22/18	HealthPartners	10,876.91
HSA correction	12/26/18	IRS/US BANK	51.86
HSA correction	12/26/18	MN Dept. of Revenue	10.16
EPAY-12	12/27/18	Connexus Energy	1,989.29
PEACH	12/27/18	Peachtree/Sage Software	1.70
13259A	12/28/18	Z Systems	16,721.35
EFILE	12/31/18	IRS/US BANK	597.96
EFILE	12/31/18	MN Dept. of Revenue	29.63
EFILE	12/31/18	Public Employees Retirement	70.78
<b>Total</b>			<b>62,623.21</b>



# North Metro Telecommunications Comm

## General Journal

For the Period From Dec 1, 2018 to Dec 31, 2018

Date	Reference	Trans Description	Debit Amt	Credit Amt
12/1/18	ACCRUED VAC/SIC/COMP	ACCRUED VAC/SICK/COMP ACCRUED VAC/SICK/COMP	96,490.07	96,490.07
12/1/18	ACCRUED WAGES	ACCRUED WAGES ACCRUED WAGES	12,053.00	12,053.00
12/31/18	ACCRUED DEPRECIATION	ACCRUED DEPRECIATION ACCRUED DEPRECIATION	12,900.00	12,900.00
12/31/18	ACCRUED VAC/SIC/COMP	ACCRUED VAC/SICK/COMP ACCRUED VAC/SICK/COMP	92,589.55	92,589.55
12/31/18	ACCRUED WAGES	ACCRUED WAGES ACCRUED WAGES	14,463.60	14,463.60
	<b>Total</b>		<b>228,496.22</b>	<b>228,496.22</b>

# North Metro TV

January 2019 Update

## Program Production

In January, a total of 113 **new programs** were produced utilizing the North Metro facilities, funds, and services. This constitutes **68:15:00 hours of new programming**.

- 42 programs were produced by the public
- 50 programs were produced by NMTV staff
- 21 programs were produced by City staff



## Van Shoots

The HD truck was used for **41:45:00** hours of production. Events produced live and recorded for additional playbacks include:

- Boys Basketball: Andover vs. Blaine
- Girls Basketball: Irondale vs. Spring Lake Park
- Girls Basketball: Elk River vs. Centennial
- Girls Hockey: Blaine vs. Centennial
- Boys Hockey: Blaine vs. Centennial
- Girls Hockey: Blaine vs. Spring Lake Park
- Girls Basketball: Irondale vs. Blaine



## Workshops

Workshop	Instructor	Organization	Students
Editing	Eric Houston	Toastmasters	4
Lecture Series - Jim Henson and the Muppets	Eric Houston	Mary Ann Young Senior Center	10
General Production Workshop	Eric Houston	General Public	1
Lecture Series - This is Orson Welles	Eric Houston	Spring Lake Park City Hall	10
Camera	Eric Houston	General Public	1
Editing	Eric Houston	General Public	1
Lecture Series - James Bond - 50 Years of 007	Eric Houston	Anoka County Library - Northtown	48
Editing Demo	Eric Houston	Video Club	10
<b>8 Workshops</b>			<b>85 Students</b>

## Home Movie Transfers

Home movie transfers have become one of our most popular services. Residents can transfer their family videos themselves for free, or pay NMTV to do it. NMTV can also transfer film, slides, and photos for a fee.

Month	Hours Transferred	Tapes	Film Reels	DVDs	Photos/ Slides	Fees Paid
January	226	64	47	2	702	\$1,305.00
<b>TOTAL:</b>	<b>226</b>	<b>64</b>	<b>47</b>	<b>2</b>	<b>702</b>	<b>\$1,305.00</b>

## Public Usage Stats

For statistical purposes, the public access department documents total numbers of unique individuals and total hours of usage of the facility by the general public, every month. These numbers include regular users, class participants, individuals transferring videos, people who attend events, and any other public usage of the facility. The numbers do not take into account the many members of the public who work with any other NMTV department, such as news, sports, municipal, or educational.

Month	Unique Individuals	Total Usage Hours
January	144	677.5
<b>TOTAL PUBLIC USAGE:</b>		<b>677.5</b>

## Production Highlights

### NMTV News Highlights

Each week Danika Peterson and Rusty Ray create a news program that highlights events, people, issues, and information important to citizens of our Member Cities. Some January highlights include:

- National Curling Trials in Blaine
- Your City Staff: Cory Richter
- New Year New Government Leaders
- Anoka Hennepin Wellness Day
- CBD Oil Store Opens in Ham Lake
- SBM Firefighters Receive Training Regarding Carbon Monoxide and Radon



In addition to daily playbacks of North Metro TV News on the cable systems, there are 545 local stories archived for viewers on the NMTV YouTube page. The page can be accessed through the [northmetrotv.com](http://northmetrotv.com) website.

### Winter Mayor's Minutes

Municipal Coordinator, Trevor Scholl, completed three episodes of Mayor's Minutes in January. Blaine, Lexington, and Centerville Mayors highlighted some of the bigger issues for their residents, in the Winter edition of the program.



### Your City Staff: Cory Richter

The "Your City Staff" segment has returned after a brief hiatus! This time around Blaine's GIS Coordinator, Cory Richter was highlighted. Who even knew Blaine HAD a GIS Coordinator?? During her interview, Cory explained that working with geospatial data helps with everything from determining property lines to developing snowplow maps. She enjoys the variety of work that her job entails, including working with the police to observe crime trends and keeping track of the age and location of underground utilities.



### Ham Lake Snow Bowl Preview

It's that snowy time of year, and it looks like there's going to be plenty of it for the Ham Lake 2019 Snow Bowl celebration. Municipal Producer, Trevor Scholl, put together a video highlighting all of the fun events that will be taking place. The video includes interviews with the event organizers and plenty of coverage of all of the festivities, including sliding, fishing, bowling, biking, food, shopping, snow sculptures and contests. The event will also be highlighted on the NMTV news.



### Lecture Series: James Bond

NMTV Instructor, Eric Houston, held what turned out to be a very popular edition of his Lecture Series at the Northtown Branch of the Anoka County Library. The class, James Bond: 50 Years of 007, attracted 48 participants. That is the highest attendance level so far at the traveling lecture series. It seems to be due to several factors including extra advertising on social media by the library and an article on the class in the ABC Newspapers. Plus, the James Bond class is one of the most popular of the classes Eric teaches....people just love everything about James Bond. Eric is just putting the finishing touches on a new class called Mary Pickford: the World's First Movie Star. It will premiere in February.



### City Productions

Municipal Producer, Trevor Scholl, completed five projects in January including several editions of Mayor's Minutes. Projects completed include:

- Mayor's Minutes: Blaine Winter 2019
- Mayor's Minutes: Centerville Winter 2019
- Mayor's Minutes: Lexington Winter 2019
- Ham Lake Snow Bowl Preview 2019
- Tyler the Donut Boy



New and ongoing projects include:

- Shot interviews/footage for Northern Force Dance Studio business profile
- New Blaine app OpenGov
- Winter restoration in Blaine Wetland Sanctuary
- Lino Lakes Public Safety Guns N Hoses event
- Blaine PD training project
- Ham Lake Senior Center activities
- Chomonix Golf Course Issues

Trevor touches base with contacts on a regular basis and also encourages Cities to contact him whenever they have an idea for a new show.

## Production equipment consulting for cities and schools

### Blaine

- No equipment issues were reported.
- **Centerville**
- 1.9.19: Bad camera just before a council meeting. Went to City Hall to troubleshoot. A short-circuit happens and the camera glitches to black for a few frames every time any camera is adjusted with the joystick. There is nothing that can be done to fix the camera. Recommend moving up the HD upgrade ASAP.
- 1.10.19: Transmission problem. Switched problematic camera out with camera 2. Video looks better.
- 1.14.19: Answered question regarding Comcast internet and whether City requires it. It is not required for internet and is just serving as a back-up. Should save the City money.

### Circle Pines

- No equipment issues were reported.

### Ham Lake

- No equipment issues were reported.

### Lexington

- No equipment issues were reported.

### Lino Lakes

- 1/10/19: Transmission issue. Went to City Hall and found that a power adapter for an JA embedding convertor has died. Replaced it with a spare from the tech shop. Will get permanent replacement. Also Picked up the KiPro Ki-stor drive and transferred footage to NMTV playback server.

### Spring Lake Park

- No equipment issues were reported.

### All Cities

- 1.2.19: Ordered Tightrope streaming servers and contracts for city channels.
- 1.2.19: Requested 2 additional 3-channel Reflect Services for live streaming of channels.
- 1.14.19: Worked with Z Systems on annual Tightrope contracts.
- 1.29.19: Contacted BizzyWeb to initiate website upgrades to accommodate city live streaming servers.
- 1.30.19: Signed off on BizzyWeb contract for website upgrades.
- 1.31.19: Set up process for commissioning streaming servers.

## City Channel 16 Playback Stats

City	Number of Times Programs Played	Hours Programmed on Channel
Blaine	187	220:21:24
Centerville	47	75:41:20
Circle Pines	153	125:35:59
Ham Lake	80	102:46:27
Lexington	107	64:39:49
Lino Lakes	66	97:45:56
Spring Lake Park	97	76:59:57
<b>Totals:</b>	<b>737 Program Playbacks</b>	<b>763:50:52 Hours of Video Programming on Channels</b>

## Programs Produced by the Public

Title	Producer	Runtime
Off Constantly	David Bauer	00:25:03
Orange Films 101	Ben Daniels	00:24:17
Your MN Moose! 2018-2019	Laurie Sigler	00:03:07
Isla Bakes Chocolate Chip Cookies	Heidi Arnson/Isla Olson	00:05:06
Every Movie Ever (2 episodes)	Joe Scholz, Rick Bostrom, Ben Daniels/Ryan Frieundschuh, Gavin Van Trease/Brett Wong/Seraiah Brooks/Eric Houston	00:49:57
Bad Movie Bros (2 episodes)	Video Club/Eric Houston	01:45:51
Game Over (8 episodes)	Eric Houston	02:46:52
A Fresh New Day	Anita Wardlaw	00:33:45
Cornerstone Church (2 episodes)	Rick Bostrom	00:58:37
Christ Lutheran Church (5 episodes)	Jacob Nessman	04:50:19
The Power of Love (5 episodes)	Rick Larson	02:30:00
LovePower (5 episodes)	Rick Larson	05:00:00
Rice Creek Watershed District Meeting (2 episodes)	Theresa Stasica	02:51:00
Hope Church (3 episodes)	Cindy Hardy	02:00:08
Oak Park Moments (3 episodes)	Dave Turnidge	01:55:55
<b>42 New Programs</b>		<b>27:16:02 New Hours</b>

## Programs Produced by NMTV Staff

Title	Producer	Runtime
Anoka County Statutory/Organizational and Regular Board Meeting (1/8/19)	T.J. Tronson	00:42:48
Anoka County Board Meeting (1/22/19)	T.J. Tronson	00:42:51
NMTV News (3 episodes)	Danika Peterson/Rusty Ray	00:42:44
SBM Radon and Carbon Monoxide Class	Danika Peterson/Rusty Ray	00:02:22
Your City Staff: Cory Richter	Danika Peterson/Rusty Ray	00:03:34
Mayor's Minutes: Lexington Winter 2019	Trevor Scholl	00:04:47
Snow Bowl Preview 2019	Trevor Scholl	00:01:55
Mayor's Minutes: Centerville Winter 2019	Trevor Scholl	00:05:56
Mayor's Minutes: Blaine Winter 2019	Trevor Scholl	00:05:08
Tyler the Donut Boy	Trevor Scholl	00:03:46
Boys Basketball: Andover/Blaine	Kenton Kipp/J. Millington	01:41:17
Girls Basketball: Irondale/Spring Lake Prk	Kenton Kipp/J. Millington	01:43:28
Girls Basketball: Elk River/Centennial	Kenton Kipp/J. Millington	01:36:46
Girls Hockey: Blaine/Centennial	Kenton Kipp/J. Millington	01:56:55
Boys Hockey: Blaine/Centennial	Kenton Kipp/J. Millington	02:15:55
Girls Hockey: Blaine/Spring Lake Park	Kenton Kipp/J. Millington	01:49:52
Boys Hockey: Andover/Blaine	Kenton Kipp/J. Millington	01:25:34
Girls Basketball: Irondale/Blaine	Kenton Kipp/J. Millington	01:33:53
Girls Hockey: Spring Lake Prk/Centennial	Kenton Kipp/J. Millington	01:18:45
Sports Den (4 episodes)	Kenton Kipp/J. Millington	01:51:10
Coach & Captains (7 episodes)	Kenton Kipp/J. Millington	00:23:27
Game Summaries (18 episodes)	Kenton Kipp/J. Millington	00:52:12
<b>50 New Programs</b>		<b>21:05:59 New Hours</b>

## Programs Produced by City Staff

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Title	Producer	Runtime
Blaine City Council Meeting (1/3/19)	Blaine Staff	01:20:08
Blaine Planning Commission Meeting (1/8/19)	Blaine Staff	00:05:35
Blaine Natural Resources Conservation Board Meeting (1/15/19)	Blaine Staff	00:58:36
Blaine City Council Meeting (1/17/19)	Blaine Staff	00:57:46
Blaine Park Board Meeting (1/22/19)	Blaine Staff	01:30:10
Blaine Special City Council Meeting (1/24/19)	Blaine Staff	01:16:16
Centerville City Council Meeting (1/9/19)	Centerville Staff	01:49:58
Centerville City Council Meeting (1/23/19)	Centerville Staff	00:55:07
Circle Pines City Council Meeting (1/8/19)	Circle Pines Staff	00:53:50
Circle Pines Utility Commission Meeting (1/16/19)	Circle Pines Staff	00:25:00
Circle Pines City Council Meeting (1/22/19)	Circle Pines Staff	00:42:44
Ham Lake City Council Meeting (1/7/19)	Ham Lake Staff	01:19:15
Ham Lake Park & Tree Meeting (1/16/19)	Ham Lake Staff	01:08:00
Ham Lake City Council Meeting (1/22/19)	Ham Lake Staff	01:10:27
Lexington City Council Meeting (1/3/19)	Lexington Staff	00:21:25
Lexington City Council Meeting (1/17/19)	Lexington Staff	00:38:22
Lino Lakes Planning & Zoning Meeting (1/9/19)	Lino Lakes Staff	01:07:20
Lino Lakes City Council Meeting (1/14/19)	Lino Lakes Staff	00:44:15
Lino Lakes City Council Meeting (1/28/19)	Lino Lakes Staff	00:53:34
Spring Lake Park City Council Meeting (1/7/19)	Spring Lake Park Staff	00:35:00
Spring Lake Park City Council Meeting (1/22/19)	Spring Lake Park Staff	01:00:04
<b>21 New Programs</b>		<b>19:52:52 New Hours</b>

If you have any questions or comments regarding this monthly report please contact Heidi Arnson at 763.231.2801 or [harnson@northmetrotv.com](mailto:harnson@northmetrotv.com).

# NORTH METRO TV

## Production Statistics 2019

Programming Statistics	J	F	M	A	M	J	JU	A	S	O	N	D	19 Total	19 Average
<b>Cablecast Programs</b>														
Cablecast Hours	2675.00												2675.00	222.92
Programs Produced - Public	2070.00												2070.00	172.50
Program Hours Produced - Public	34.00												34.00	2.83
Prog. Produced - Affiliated Public	20.50												20.50	1.71
Prog. Hours Produced - Affil. Public	8.00												8.00	0.67
Programs Produced - City Staff	6.75												6.75	0.56
Prog. Hours Produced - City Staff	21.00												21.00	1.75
Programs Produced - NMTV Staff	20.00												20.00	1.67
Prog. Hours Produced - NMTV Staff	50.00												50.00	4.17
Total Public Programs Produced	21.00												21.00	1.75
Total Internal Programs Produced	42.00												42.00	3.50
Total Staff Programs Produced	71.00												71.00	5.92
% Staff Produced Programs	113.00												113.00	9.42
% Public Produced Programs	62.83%												62.83%	62.83%
External Programs Submitted	37.17%												37.17%	37.17%
External Program Hours	19.00												19.00	1.58
Total New Programs	14.25												14.25	1.19
Total New Programs	132.00												132.00	11.00
<b>Equipment Usage Statistics</b>														
Facility Hours Available	176.00												176.00	14.67
Public Field Equipment Uses	7.00												7.00	0.58
Studio A	38.00												38.00	3.17
% of Available Time	21.59%												21.59%	21.59%
Studio B	29.75												29.75	2.48
% of Available Time	16.90%												16.90%	16.90%
Public MAC A Edit Suite	71.50												71.50	5.96
% of Available Time	40.63%												40.63%	2.68%
Public MAC B Edit Suite	77.25												77.25	6.44
% of Available Time	43.89%												43.89%	43.89%
Public MAC C Edit Suite	83.75												83.75	6.98
% of Available Time	47.59%												47.59%	47.59%
<b>Production Van Statistics</b>														
Production Hours	41.75												41.75	3.48
Number of Van Shoots	7.00												7.00	0.58
Average Hours Per Shoot	5.96												5.96	0.29
Number of New Volunteers	1.00												1.00	0.08
Volunteer Hours	21.00												21.00	1.75
<b>Public Access Statistics</b>														
Number of Workshops	8.00												8.00	0.67
Number of Students	85.00												85.00	7.08
PAP Volunteer Hours	199.75												199.75	16.65
Total Public Facility Usage Hours	677.50												677.50	56.46



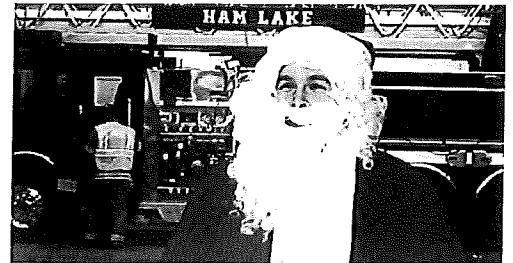
# North Metro TV

December 2018 Update

## Program Production

In December, a total of 84 **new programs** were produced utilizing the North Metro facilities, funds, and services. This constitutes **57:00:00 hours of new programming**.

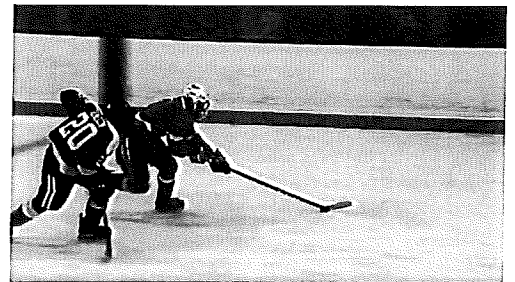
- 31 programs were produced by the public
- 34 programs were produced by NMTV staff
- 19 programs were produced by City staff



## Van Shoots

The HD truck was used for **18:00:00** hours of production. Events produced live and recorded for additional playbacks include:

- Wrestling: Blaine vs. Centennial
- Girls Hockey: Centennial vs. Blaine
- Boys Hockey: Centennial vs. Blaine



## Workshops

Workshop	Instructor	Organization	Students
Lecture Series - The Star Wars Holiday Special	Eric Houston	Anoka County History Center	30
Lecture Series - Dracula, Frankenstein and King Kong: Monster Movies of the '20s and '30s	Eric Houston	Video Club	6
Lecture Series - Wolfman, Creature, and Godzilla: Monster Movies of the '40s and '50s	Eric Houston	Video Club	7
Bad Movie Bros Live Practical	Eric Houston	Video Club	3
<b>4 Workshops</b>			<b>46 Students</b>

## Home Movie Transfers

Home movie transfers have become one of our most popular services. Residents can transfer their family videos themselves for free, or pay NMTV to do it. NMTV can also transfer film, slides, and photos for a fee.

Month	Hours Transferred	Tapes	Film Reels	DVDs	Photos/ Slides	Fees Paid
January	201.75	57	122	20	409	\$1,159.00
February	120.5	41	53	15	1,164	\$780.00
March	167.5	64	0	74	237	\$381.00
April	128.00	52	53	17	781	\$195.00
May	59.00	29	18	9	0	\$460.00
June	133.75	45	36	31	475	\$354.00
July	166.5	27	54	28	230	\$200.00
August	224.5	64	11	62	649	\$1,157.00
September	138.75	35	0	3	1,112	\$345.00
October	80.75	34	0	14	0	\$577.00
November	247	54	79	26	215	\$829.20
December	462	199	41	75	172	\$1,191.00
<b>TOTAL:</b>	<b>2,002.00</b>	<b>701</b>	<b>467</b>	<b>374</b>	<b>5,444</b>	<b>\$7,628.20</b>

## Public Usage Stats

For statistical purposes, the public access department documents total numbers of unique individuals and total hours of usage of the facility by the general public, every month. These numbers include regular users, class participants, individuals transferring videos, people who attend events, and any other public usage of the facility. The numbers do not take into account the many members of the public who work with any other NMTV department, such as news, sports, municipal, or educational.

Month	Unique Individuals	Total Usage Hours
January	111	460
February	112	685.25
March	117	552.25
April	47	295.5
May	103	409.25
June	116	556.75
July	101	513.25
August	106	612.75
September	90	441
October	73	366.75
November	118	604.75
December	126	741
<b>TOTAL PUBLIC USAGE:</b>		<b>6,238.75</b>

## Production Highlights

### NMTV News Highlights

Each week Danika Peterson and Rusty Ray create a news program that highlights events, people, issues, and information important to citizens of our Member Cities. Some December highlights include:

- Lino Lakes May Save Oldest Building in City
- Law Enforcement Makes Holidays Brighter
- Hope for the Community
- Anoka County Library First in Nation on New Technology

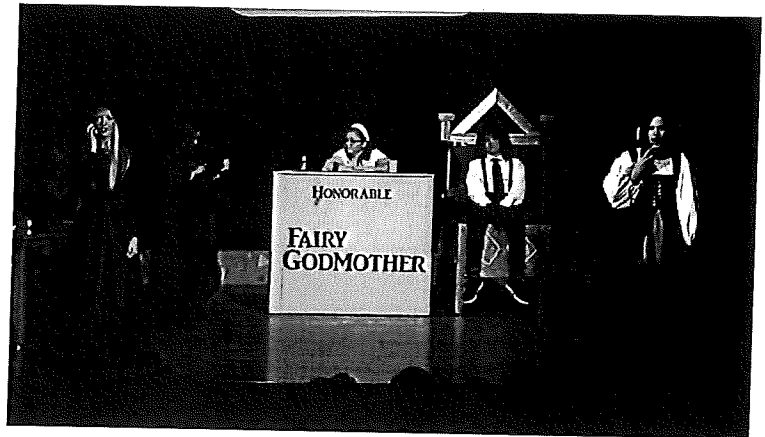


- Anoka County Commissioner Jim Kordiak Says Goodbye
- Ruffridge-Johnson Opens in Centerville
- Blaine Salvation Army Theft
- Heroes and Helpers

In addition to daily playbacks of North Metro TV News on the cable systems, there are 534 local stories archived for viewers on the NMTV YouTube page. The page can be accessed through the northmetrotv.com website.

### **Trial of the Wicked Witch**

T.J. Tronson recorded Centennial Middle School's production of "The Trial of the Wicked Witch" in December. After capturing the event, he edited the footage with color and audio quality enhancements. He also created a title page and closing credits featuring the names of all of the students and teachers involved in the production. While we can't play the video on our channels because of copyright issues, we make the DVDs available to the school.

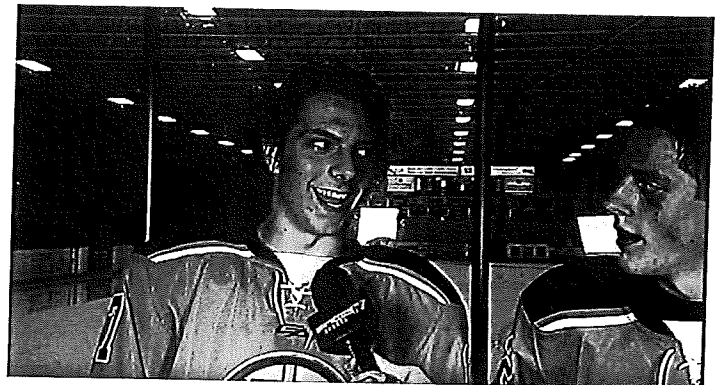


### **Home Movie Transfers**

2018 was a very busy year for home movie transfers. Studio Manager, Eric Houston, advertised the service in the TidBits paper and the Clip 'n Save coupon circular, along with taking out ads in the Blaine Community Resource Guide, and on Facebook, Instagram, and Google. He also secured ad space on the Target Employees benefits page and researched the cost for promoting the service on the back of grocery store receipt tapes. So far, the TidBits paper brings in the largest number of people. With increased usage we found the need to invest in two more film scanners, which scan each individual frame of film at high resolution, offering the absolute best picture quality possible. While many people choose to transfer their VHS tapes to DVD themselves for free, commercial transfers increased over the previous year, with fees totaling \$7,628. While we don't think this service is going to earn large amounts of money, we do think it is possible to hit the \$20,000 mark.

### **Winter Sports Season Starts**

After a brief sports hiatus from mid-November to mid-December, sports programming is back! Kenton, Jeremy, and the whole sports team got back to it with wrestling, hockey, and basketball coverage and the start of the winter Sports Den season. They also produced five episodes of their very popular Coach & Captain's series along with game summaries and Sports Den Highlights posted on our YouTube page.



### **Holiday Special Lecture Class**

Eric Houston put together a Star Wars Holiday Special for his growing lecture series. The class was offered as part of the Christmas festivities at the Anoka County Historical Center. Thirty people attended the lecture, with many taking literature regarding future classes and our home movie transfer service.

### **New Class**

In an ongoing effort to keep students engaged, Eric Houston is creating a new class for the general public. The Screenwriting Workshop will make students familiar with screenwriting and screenplays through reading and dissecting an actual screenplay. Students will learn terms and principals of telling a story on television, and then write an actual screenplay for an episode of Gilligan's Island as a team.

## City Productions

Municipal Producer, Trevor Scholl, completed five projects in December including a couple of EDA pieces and an in-depth profile of a new brewery in Spring Lake Park. Projects completed include:

- Centerville Economic Development Authority
- Torg Brewing
- Ham Lake and Santa Partner for NACE
- Blaine Economic Development Review
- Blaine Indoor Market



New and ongoing projects include:

- Shot interviews for Lexington's Mayor's Minutes
- Organizing winter Mayor's Minutes
- Northern Force Dance business profile
- New Blaine app OpenGov
- Winter restoration in Blaine Wetland Sanctuary
- Booked Centerville's Mayor's Minutes
- Ham Lake Snowbowl promo

Trevor touches base with contacts on a regular basis and also encourages Cities to contact him whenever they have an idea for a new show.

## Production equipment consulting for cities and schools

### Blaine

- No equipment issues were reported.
- **Centerville**
- No equipment issues were reported.

### Circle Pines

- 12.3.18: Discussed camera issue with Z Systems and Ross. Exploring whether the gain feature could be involved in their macro button.
- 12.5.18: Went to City Hall to investigate connection issue. Checked all settings at NMTV. Good. Checked all settings at City Hall. Good. Called Jim Ellison at Roseville to check connectivity. Could not see. Matt traced the problem to a faulty connection at the wall outlet. Will make replacement cable in case it is not the wall connector. Reconnected and is now working.
- 12.10.18: Ross figured out a resolution to the camera gain problem. Sent an updated version of Dashboard & LCS that has the ability to save the camera gain feature in the shot list. The problem is a result of Sony changing their protocol and Ross quickly resolved the issue once we reported it.
- 12.27.18: Went to City Hall with Z Systems to review set-up. Checked on mic set-up. Installed a program so changes can be easily made.
- 12.27.18: Investigated hum coming through mic line. Still present even when mics are turned off. Could be a grounding problem. Will check on a power cleanser.

### Ham Lake

- 12.5.18: Went to City Hall to help with audio issues. Tested all the mics and reset the audio board settings. Reviewed faders with Nicole.
- 12.18.18: More audio issues. Scheduled a meeting at Ham Lake with Z Systems.
- 12.27.18: Met with Nicole and Z Systems to review audio set-up. Went through all the mics and set the levels. Z Systems reviewed how to turn down the speakers in the control room if feedback starts to happen.

### Lexington

- 12.6.18: Took Comcast tech to City Hall to adjust video levels. Since Lexington's power outage the video level looks washed out and dark. Turned down the white clip. Fixed problem. Also tested audio and mic levels. All good.
- 12.10.18: Went to City Hall to trouble shoot audio problem. A power supply for the Sennhieser ASA1 amp stopped working and caused half of the mics to fail. Ordered a new part from B&H.

- 12.17.18: Went to City Hall to install the new power supply. Checked the audio with Michele back in master control and all checked out good.  
**Lino Lakes**
- No equipment issues were reported.  
**Spring Lake Park**
- No equipment issues were reported.

### City Channel 16 Playback Stats

City	Number of Times Programs Played	Hours Programmed on Channel
Blaine	201	269:23:03
Centerville	57	86:34:17
Circle Pines	192	125:20:26
Ham Lake	84	97:22:21
Lexington	117	71:07:59
Lino Lakes	81	144:08:29
Spring Lake Park	112	117:27:14
<b>Totals:</b>	<b>844 Program Playbacks</b>	<b>911:23:49 Hours of Video Programming on Channels</b>

### Programs Produced by the Public

Title	Producer	Runtime
Off Constantly (2 episodes)	David Bauer	00:51:36
Toastmasters Live!	Jason Sonnek	00:24:17
Tea Time With Susie	Susie Brooks	01:02:56
Every Movie Ever (2 episodes)	Joe Scholz, Rick Bostrom, Ben Daniels/Ryan Frieundschuh, Gavin Van Trease/Brett Wong/Seraiah Brooks/Eric Houston	00:47:52
Bad Movie Bros	Video Club/Eric Houston	00:29:29
A Fresh New Day (2 episodes)	Anita Wardlaw	00:56:56
Christ Lutheran Church (4 episodes)	Jacob Nessman/Chance Amundson	04:04:56
The Power of Love (3 episodes)	Rick Larson	01:30:00
LovePower (3 episodes)	Rick Larson	03:00:00
Rice Creek Watershed District Meeting	Theresa Stasica	01:04:45
Hope Church (4 episodes)	Cindy Hardy	03:04:10
Oak Park Moments (7 episodes)	Dave Turnidge	04:30:00
<b>31 New Programs</b>		<b>21:46:57 New Hours</b>

### Programs Produced by NMTV Staff

Title	Producer	Runtime
Anoka County Board Meeting (12/7/18)	T.J. Tronson	00:23:09
Anoka County Board Meeting (12/18/18)	T.J. Tronson	01:15:28
NMTC Meeting (12/19/18)	T.J. Tronson	00:12:42
Centennial Middle School Presents: Trial of the Wicked Witch	T.J. Tronson	01:38:00
NMTV News (3 episodes)	Danika Peterson/Rusty Ray	00:51:15
Lino Lakes May Save Oldest Building	Danika Peterson/Rusty Ray	00:01:08
Heroes and Helpers	Danika Peterson/Rusty Ray	00:02:43
Lovell Road	Danika Peterson/Rusty Ray	00:03:25
Ruffridge-Johnson Opens in Centerville	Danika Peterson/Rusty Ray	00:01:22



Cub Scouts Explore Science	Danika Peterson/Rusty Ray	00:02:35
Centerville Economic Development Authority	Trevor Scholl	00:03:20
Trog Brewing	Trevor Scholl	00:08:00
Ham Lake and Santa Partner for NACE	Trevor Scholl	00:02:42
Blaine Economic Development Review	Trevor Scholl	00:03:53
Blaine Indoor Market	Trevor Scholl	00:02:12
Boys Hockey: Blaine/Spring Lake Park	Kenton Kipp/J. Millington	01:37:37
Wrestling: Blaine/Centennial	Kenton Kipp/J. Millington	01:09:42
Girls Hockey: Centennial/Blaine	Kenton Kipp/J. Millington	01:45:58
Boys Hockey: Centennial/Blaine	Kenton Kipp/J. Millington	02:16:34
Boys Basketball: Centennial/Blaine	Kenton Kipp/J. Millington	01:19:07
Sports Den (2 episodes)	Kenton Kipp/J. Millington	00:57:19
Coach & Captains (5 episodes)	Kenton Kipp/J. Millington	00:15:55
Game Summaries (2 episodes)	Kenton Kipp/J. Millington	00:01:45
Sports Den Highlights (3 episodes)	Kenton Kipp/J. Millington	00:05:24
<b>34 New Programs</b>		<b>14:21:25 New Hours</b>

## Programs Produced by City Staff

Title	Producer	Runtime
Blaine Traffic Commission Meeting (12/4/18)	Blaine Staff	01:16:00
Blaine City Council Meeting (12/6/18)	Blaine Staff	00:59:05
Blaine Planning Commission Meeting (12/11/18)	Blaine Staff	02:07:56
Blaine Truth in Taxation Meeting (12/13/18)	Blaine Staff	00:44:17
Blaine Natural Resources Conservation Board Meeting (12/18/18)	Blaine Staff	00:47:56
Blaine City Council Meeting (12/20/18)	Blaine Staff	02:19:18
Centerville City Council Meeting (12/12/18)	Centerville Staff	02:43:20
Circle Pines City Council Meeting (12/11/18)	Circle Pines Staff	00:46:40
Circle Pines Utility Commission Meeting (12/19/18)	Circle Pines Staff	00:27:09
Circle Pines City Council Meeting (12/26/18)	Circle Pines Staff	00:54:07
Ham Lake City Council Meeting (12/3/18)	Ham Lake Staff	00:30:50
Ham Lake Planning Commission Meeting (12/10/18)	Ham Lake Staff	01:12:15
Ham Lake City Council Meeting (12/17/18)	Ham Lake Staff	01:34:25
Lexington City Council Meeting (12/6/18)	Lexington Staff	00:26:24
Lexington City Council Meeting (12/20/18)	Lexington Staff	00:37:26
Lino Lakes City Council Meeting (12/10/18)	Lino Lakes Staff	02:39:11
Lino Lakes Planning & Zoning Meeting (12/12/18)	Lino Lakes Staff	00:23:07
Spring Lake Park City Council Meeting (12/3/18)	Spring Lake Park Staff	01:26:14
Spring Lake Park City Council Meeting (12/17/18)	Spring Lake Park Staff	00:46:11
<b>19 New Programs</b>		<b>21:01:56 New Hours</b>

If you have any questions or comments regarding this monthly report please contact Heidi Arnson at 763.231.2801 or harnson@northmetrotv.com.

# **NORTH METRO TV** **Production Statistics 2018**

Programming Statistics													18 Total	18 Average
	J	F	M	A	M	J	JU	A	S	O	N	D		
Cablecast Programs	2644.00	2465.00	2625.00	1393.00	2506.00	2302.00	2940.00	2720.00	2487.00	2812.00	2491.00	2676.00	30061.00	2505.08
Cablecast Hours	2108.00	1995.75	1948.75	1182.75	2103.50	1928.50	2376.00	2118.75	2091.50	2221.75	1892.50	2197.25	24165.00	2013.75
Programs Produced - Public	19.00	27.00	24.00	22.00	18.00	23.00	15.00	31.00	20.00	28.00	25.00	19.00	271.00	22.58
Program Hours Produced - Public	12.25	12.50	7.75	13.50	10.50	20.50	11.50	26.75	13.00	21.00	16.25	13.00	178.50	14.88
Prog. Produced - Affiliated Public	8.00	10.00	2.00	12.00	11.00	7.00	8.00	6.00	10.00	10.00	2.00	12.00	98.00	8.17
Prog. Hours Produced - Affil. Public	5.25	6.50	4.00	10.50	11.50	4.50	7.50	5.75	9.00	7.50	2.00	8.50	82.50	6.88
Programs Produced - City Staff	21.00	21.00	26.00	26.00	21.00	22.00	21.00	23.00	23.00	23.00	19.00	19.00	265.00	22.08
Prog. Hours Produced - City Staff	20.75	23.50	24.00	27.25	23.00	24.50	18.25	21.00	26.75	23.00	21.75	21.00	274.75	22.90
Programs Produced - NMTV Staff	31.00	29.00	26.00	18.00	56.00	29.00	53.00	32.00	41.00	53.00	29.00	34.00	431.00	35.92
Prog. Hours Produced - NMTV Staff	21.00	16.50	17.50	12.00	32.00	25.50	54.00	11.50	26.00	43.50	16.50	14.50	290.50	24.21
Total Public Programs Produced	27.00	37.00	26.00	34.00	29.00	30.00	23.00	37.00	30.00	38.00	27.00	31.00	369.00	30.75
Total Staff Programs Produced	52.00	50.00	52.00	44.00	77.00	51.00	74.00	55.00	64.00	76.00	48.00	53.00	696.00	58.00
Total Internal Programs Produced	79.00	87.00	78.00	78.00	106.00	81.00	97.00	92.00	94.00	114.00	75.00	84.00	1065.00	88.75
% Staff Produced Programs	65.82%	57.47%	66.67%	56.41%	72.64%	62.96%	76.29%	59.78%	68.09%	66.67%	64.00%	63.10%	65.35%	65.35%
% Public Produced Programs	34.18%	42.53%	33.33%	43.59%	27.36%	37.04%	23.71%	40.22%	31.91%	33.33%	36.00%	36.90%	34.65%	34.65%
External Programs Submitted	33.00	19.00	18.00	21.00	28.00	20.00	23.00	14.00	27.00	19.00	31.00	12.00	265.00	22.08
External Program Hours	24.50	14.00	14.25	16.00	23.00	14.50	16.50	11.50	20.00	14.50	20.50	9.25	198.50	16.54
Total New Programs	112.00	106.00	96.00	99.00	134.00	101.00	120.00	106.00	121.00	133.00	106.00	96.00	1330.00	110.83
Equipment Usage Statistics														
Facility Hours Available	196.00	188.00	216.00	161.00	201.00	208.00	167.00	247.00	201.00	182.00	160.00	157.00	2284.00	190.33
Public Field Equipment Uses	6.00	12.00	11.00	9.00	8.00	8.00	12.00	11.00	9.00	8.00	5.00	5.00	104.00	8.67
Studio A	73.75	76.25	72.75	28.00	41.00	67.25	44.75	46.50	37.00	58.00	77.00	35.50	657.75	54.81
% of Available Time	37.63%	40.56%	33.68%	17.39%	20.40%	32.33%	26.80%	18.83%	18.41%	31.87%	48.13%	22.61%	28.80%	28.80%
Studio B	5.75	28.25	7.50	31.75	5.50	17.00	25.50	33.00	31.75	45.75	53.00	29.00	313.75	26.15
% of Available Time	2.93%	15.03%	3.47%	19.72%	2.74%	8.17%	15.27%	13.36%	15.80%	25.14%	33.13%	18.47%	13.74%	13.74%
Public MAC A Edit Suite	102.75	81.25	98.50	48.25	59.50	108.25	157.50	157.75	62.00	55.50	160.00	168.50	1259.75	104.98
% of Available Time	52.42%	43.22%	45.60%	29.97%	29.60%	52.04%	94.31%	63.87%	30.85%	30.49%	100.00%	107.32%	55.16%	47.18%
Public MAC B Edit Suite	101.00	70.25	84.50	94.25	64.00	50.00	53.00	65.25	56.25	69.50	63.53	112.25	883.78	73.65
% of Available Time	51.53%	37.37%	39.12%	58.54%	31.84%	24.04%	31.74%	26.42%	27.99%	38.19%	39.71%	71.50%	38.69%	38.69%
Public MAC C Edit Suite	79.75	67.50	92.25	46.75	25.50	94.25	86.75	100.00	89.00	53.25	83.00	130.25	948.25	79.02
% of Available Time	40.69%	35.90%	42.71%	29.04%	12.69%	45.31%	51.95%	40.49%	44.28%	29.26%	51.88%	82.96%	41.52%	41.52%
Production Van Statistics														
Production Hours	38.00	60.50	26.75	22.25	48.75	60.00	85.00	11.75	46.50	52.50	24.50	18.00	494.50	41.21
Number of Van Shoots	6.00	8.00	4.00	4.00	7.00	9.00	7.00	2.00	7.00	7.00	3.00	3.00	67.00	5.58
Average Hours Per Shoot	6.33	7.56	6.69	5.56	6.96	6.67	12.14	5.88	6.64	7.50	8.17	6.00	7.38	3.43
Number of New Volunteers	3.00	2.00	1.00	1.00	1.00	9.00	0.00	1.00	1.00	2.00	0.00	0.00	21.00	1.75
Volunteer Hours	29.00	40.00	4.00	12.00	32.00	108.00	159.00	2.00	12.00	16.00	16.00	0.00	430.00	35.83
Public Access Statistics														
Number of Workshops	11.00	11.00	10.00	1.00	6.00	11.00	8.00	10.00	7.00	6.00	6.00	4.00	91.00	7.58
Number of Students	78.00	65.00	105.00	1.00	9.00	80.00	71.00	71.00	63.00	44.00	62.00	46.00	695.00	57.92
PAP Volunteer Hours	146.75	216.50	159.50	101.00	109.50	205.75	159.25	168.75	151.75	94.50	138.75	148.75	1800.75	150.06
Total Public Facility Usage Hours	460.00	685.25	552.25	295.50	409.25	556.75	513.25	612.75	441.00	366.75	604.75	741.00	6238.50	519.88

## **EXECUTIVE COMMITTEE MINUTES**

Meeting of February 6, 2019

Executive Cmte. Present: Dick Swanson; Blaine, Mike Murphy; Lexington, Cindy Hansen; Spring Lake Park, Dale Stoesz; Lino Lakes

Absent:

Others Present: Heidi Arnson; Executive Director

### **CALL TO ORDER**

The Chair called the meeting to order at 6:00 p.m.

### **APPROVAL OF MINUTES**

**A motion to approve the December 5, 2018 Executive Committee meeting minutes was made by C. Hansen. Second, D. Stoesz. Motion approved.**

### **EXECUTIVE DIRECTOR / OPERATIONS COMMITTEE REPORT**

- 4th quarter PEG and franchise fees have been received from Comcast and CenturyLink. Franchise fees from Comcast increased over the 3rd quarter, and PEG fees remained the same. Subscriber levels for CenturyLink continue to decline. The fees will be used for the approved 2019 Commission budget, with a designated amount being returned to Cities.
- A memo outlining the division of the 2018 franchise fees being returned to Cities was reviewed. The memo includes a table determining city revenue as a percentage of gross revenue, and a table utilizing that percentage to determine fees returned to each City.

**MOTION:** To approve disbursement of the 2018 franchise fees, retained by the Member Cities, as presented in the disbursement materials. **Motion made by M. Murphy. Second, C. Hansen. Motion approved.**

- The Comcast franchise renewal meeting scheduled for February 4th has been rescheduled to March 12th.
- The live streaming servers for each City channel will be delivered to NMTV by mid-February. Installation, integration, website updates, and coordination with Tightrope's Reflect service are scheduled to be completed by the end of February. The servers should be functioning by the first week of March.

### **OLD BUSINESS**

- There was no old business.



**NEW BUSINESS**

- Recommendations were made for members of the 2019 Executive Committee. At the meeting, Dick Swanson, Mike Murphy, Dale Stoesz and Cindy Hansen indicated a willingness to serve. If no other candidates express interest in the Committee, at the full Commission meeting, it is recommended that Dale Stoesz serve as Chair, Dick Swanson serve as Vice Chair, Mike Murphy serve as Treasurer, and Cindy Hansen serve as Secretary. It was reiterated that this is only a recommendation and that the positions are open and available to anyone who would like to run for them.

**MOTION:** To approve Dale Stoesz as the Chair, Dick Swanson as the Vice Chair, Mike Murphy as the Treasurer, and Cindy Hansen as the Secretary of the 2019 NMTV Cable Commission. **Motion made by M. Murphy. Second, D. Swanson. Motion approved.**

**ADJOURN**

**Motion to adjourn made by C. Hansen. Second, M. Murphy. Motion approved. The meeting was adjourned at 6:22 p.m.**

**DISBURSEMENT OF 2018 FRANCHISE FEES  
RECEIVED BY CITIES IN 2019**

**TABLE I**

	MEMBER CITIES FRANCHISE FEES		2019 COMMISSION BUDGET AVAIL		FRANCHISE FEES RETAINED BY CITIES
<b>TOTAL:</b>	1,260,461	-	860,461	=	400,000

**TABLE II**

CITY	2018 CABLE COMPANY REVENUE BY CITY *		TOTAL SYSTEM REVENUE *		CITY REVENUE AS % OF SYSTEM REVENUE
Blaine	\$13,950,329	÷	\$25,209,169	=	55.33831%
Centerville	\$868,717	÷	\$25,209,169	=	3.44604%
Circle Pines	\$1,125,426	÷	\$25,209,169	=	4.46435%
Ham Lake	\$3,395,273	÷	\$25,209,169	=	13.46841%
Lexington	\$408,834	÷	\$25,209,169	=	1.62177%
Lino Lakes	\$4,066,170	÷	\$25,209,169	=	16.12973%
Spring Lake Park	\$1,394,420	÷	\$25,209,169	=	5.53140%
<b>TOTAL:</b>	\$25,209,169	÷	\$25,209,169	=	100.00000%

**TABLE III**

CITY	FRANCHISE FEES RETAINED BY CITIES		CITY REVENUE AS % OF SYSTEM REVENUE		TOTAL FRANCHISE FEES RETAINED BY CITY
Blaine	\$400,000	x	55.33831%	=	\$221,353.24
Centerville	\$400,000	x	3.44604%	=	\$13,784.16
Circle Pines	\$400,000	x	4.46435%	=	\$17,857.40
Ham Lake	\$400,000	x	13.46841%	=	\$53,873.64
Lexington	\$400,000	x	1.62177%	=	\$6,487.08
Lino Lakes	\$400,000	x	16.12973%	=	\$64,518.92
Spring Lake Park	\$400,000	x	5.53140%	=	\$22,125.59
<b>TOTAL:</b>	\$400,000	x	100.00001%	=	\$400,000.03

\* All amounts are rounded to nearest dollar.

**NORTH METRO TELECOMMUNICATIONS COMMISSION  
UNAPPROVED OPERATIONS COMMITTEE MEETING NOTES**

Tuesday, February 5, 2019

**CALL TO ORDER**

The meeting began at 10:40 a.m.

**MEMBERS PRESENT**

B. Petracek, D. Buchholtz, J. Karlson, C. Arneson

**MEMBERS ABSENT**

D. Krueger, P. Antonen, M. Statz,

**OTHERS PRESENT**

H. Arnson

**APPROVAL OF MEETING NOTES**

The meeting notes of December 4, 2018 were approved by consensus.

**EXECUTIVE DIRECTOR REPORT**

- The 4th quarter PEG and franchise fees have been received from Comcast and CenturyLink. Franchise fees from Comcast increased over the 3rd Quarter, and PEG fees remained the same. CenturyLink numbers continue to decline.
- A memo outlining the division of the 2018 franchise fees being returned to Cities was reviewed. The fees will be delivered to Cities on February 21st.
- The Comcast franchise renewal meeting, originally scheduled for February 4th, has been rescheduled to March 12th.
- The live streaming servers for each City channel will be delivered to NMTV by mid-February. Installation, integration, website updates, and coordination with Tightrope's Reflect service are scheduled be completed by the end of February. The servers should be functioning by the first week of March.

**OLD BUSINESS**

- There was no old business.

**NEW BUSINESS**

- There was no new business.

**ADJOURNMENT**

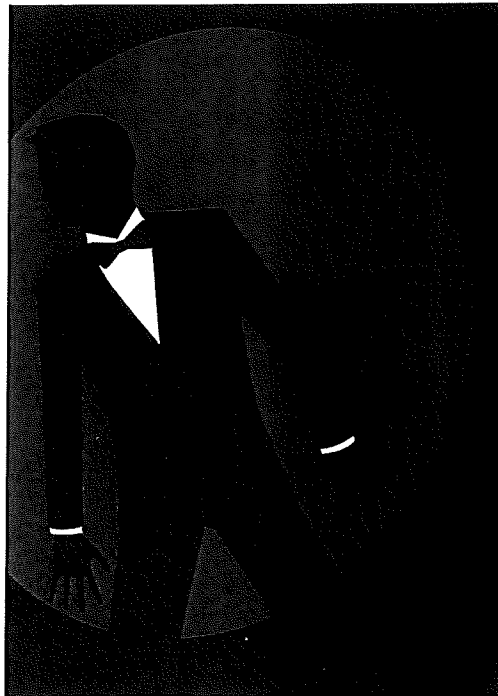
The meeting was adjourned at 11:20 a.m.

[https://www.hometownsource.com/abc\\_newspapers/free/learn-about-the-history-of-bond-at-northtown-library/article\\_80770ed0-1817-11e9-81c5-7b4462689be0.html](https://www.hometownsource.com/abc_newspapers/free/learn-about-the-history-of-bond-at-northtown-library/article_80770ed0-1817-11e9-81c5-7b4462689be0.html)

FEATURED

## Learn about the history of Bond at Northtown Library

Paige Kieffer Jan 15, 2019



Learn more about the infamous MI6 agent who has a license to kill at the presentation "James Bond Throughout History" 5-6 p.m., Thursday, Jan. 24, at the Northtown Library, 711 County Hwy. 10 Frontage Road, Blaine.

North Metro TV's Eric Houston will give the presentation and will examine the history of James Bond from his literary origins in the Ian Fleming novels through his media performances in various films and television and radio shows. Houston will also examine the cinematic structure of the films and the differences they share with the novels.

"I've always loved the big James Bond action films," Houston said. "The films have been very innovative in portraying action storytelling along with great stunt work and special effects."

The presentation will also include rare film clips and photographs that fans of 007 will enjoy.

Houston said called himself a bona fide film and television enthusiast, and he even majored in the subject at the University of Notre Dame.

"It's always something I've been very passionate about," he said.

Houston has done numerous local history productions on film and television and wanted to focus on the character of Bond.

"I decided to focus on James Bond because he's such a popular character," Houston said. "The franchise has been near and dear to my heart, so I wanted to share what I have learned about James Bond and the impact the character has had."

Houston will examine the actors who have played Bond in various productions, including Sean Connery, Roger Moore, Timothy Dalton, Pierce Brosnan and Daniel Craig, and Houston will provide trivia on actors who narrowly missed out on playing the famous spy.

"The films have been so appealing because the character of James Bond is like a blank slate that the audience can project themselves on, and who doesn't want that life of glamour, adventure and excitement?" Houston said.

Houston will provide clips of actors who auditioned for the role of Bond but did not receive the part, such as Sam Neill from "Jurassic Park" and James Brolin from "Marcus Welby, M.D."

In Houston's opinion, though, Sean Connery gave the greatest portrayal of James Bond ever.

"If you love James Bond or movies in general you will learn a lot at this presentation, and you're going to have a lot of fun," Houston said.

Learn more about the event by calling the Northtown Library at 763-324-1510 or visiting its website at [bit.ly/2Qqi9VS](https://bit.ly/2Qqi9VS).

**[paige.kieffer@ecm-inc.com](mailto:paige.kieffer@ecm-inc.com)**

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Paige Kieffer

# MINNPOST

## GOOD JOBS

*MinnPost's Good Jobs beat is made possible by a grant from MSPWin, a philanthropic collaborative committed to strengthening the workforce in the Twin Cities metro area. MSPWin plays no role in determining the content of the coverage.*

## Why even the most ambitious broadband bill at the Legislature still won't bring speedy internet to all Minnesotans

By Walker Orenstein | 01/16/2019



CC/Flickr/Doc Searls

A group of DFL and Republican lawmakers are pushing to narrow the broadband gap by injecting \$70 million over the next two years into a grant program for internet projects.

While cities and towns in Koochiching County might have fast and reliable internet service, large parts of the northern Minnesota region currently have no good options. Paul Nevanen, director of the county's Economic Development Authority, says that translates to headaches for the area's economy.

Just miles from International Falls, where broadband access has attracted a significant data storage business, Nevanen said resorts and recreation outfits that rely on tourism to Rainy Lake and Voyageurs National Park have struggled to cope with poor internet connections.

“We’ve got resorts that have their systems connected to the internet and can’t process credit cards at certain times because they don’t have the capacity,” Nevanen said.

There is no shortage of stories across Minnesota like the ones in Koochiching County, where uneven access to high-speed internet, sometimes called broadband, persists despite a decade of study and more than \$85 million in state spending (plus more in local, federal and private money) since 2014.

Now a group of DFL and Republican lawmakers are pushing to narrow that broadband gap by injecting \$70 million over the next two years into a grant program for internet projects. But while the new money would keep Minnesota on track to meet one of its broadband access goals by 2022, the state has a long and expensive road ahead to reach a more ambitious pledge — to bring much faster universal internet to the state by 2026, said Danna MacKenzie, executive director of the state’s Office of Broadband Development.

“We absolutely will be celebrating that we’ve done something that I don’t think too many other states have done,” MacKenzie said about the prospect of reaching the state’s 2022 goal. “But at the same time, no, we aren’t necessarily done yet.”

## Progress made

The biggest obstacle to high-speed internet outside of large cities has always been money. In remote areas, it’s expensive to build infrastructure, and there are fewer potential customers to offset the costs.

Justin Forde, the senior director of government relations for Midco, a Midwestern telecom company, said there can be a “tremendous” price tag for running wireline internet services, such as fiber-based broadband or digital subscriber lines (DSL), to rural houses and businesses.

“It’s tough to do that with only private capital because the return isn’t there for some of these last-reach spots,” he said.

To prompt internet companies to expand, governments have stepped in. The 2009 economic stimulus package championed by former president Barack Obama had \$7.2 billion for broadband grants and loans across the country, while Minnesota has had a task force on broadband since 2008 along with its grant program spending.

There’s no doubt Minnesota has come a long way in providing high-speed internet since the late 2000s. More than 90 percent of Minnesotans and 79 percent of residents in rural areas now have access to internet with download speeds of at least 25 megabits per second (Mbps) and upload speeds of 3 Mbps. (Netflix recommends download speeds of just 5 Mbps for high-

definition streaming.) In February of 2015, just 86 percent of residents statewide and 68 percent of people outside of urban areas could access 25/3.

## Estimates of Minnesota broadband availability over time

Date	25/3 Mbps		100/20 Mbps	
	Statewide	Rural	Statewide	Rural
February, 2015	85.83	68.08	39.14	40.68
July, 2016	87.72	72.24	68.45	48.93
October, 2016	87.53	72.03	68.53	49.33
April, 2017	87.94	73.07	69.86	52.46
October, 2017	88.11	73.45	70.07	52.88
April, 2018	90.77	79.26	73.66	58.99

Jim Boyd, executive director of the Cook County Chamber of Commerce, said his county is a success story. Arrowhead Electric Cooperative offers blazing speeds to much of the area after developing a fiber network with the help of \$16 million in stimulus money. Roughly 95 percent of the county now has access to internet with speeds of at least 100 Mbps/20 Mbps.

That internet speed is Minnesota's goal for all residents by 2026. So far, 74 percent of the state — and 59 percent of rural areas — have access to that speed, though that's up from the 39 percent of residents (41 percent in rural areas) that had it in 2015.

## Percent of households served by 100mbps down/20mbps up broadband, 2018



+

—



**Percent**

0

20

40

60

80

100

Source: Minnesota DEED

## A long way to go

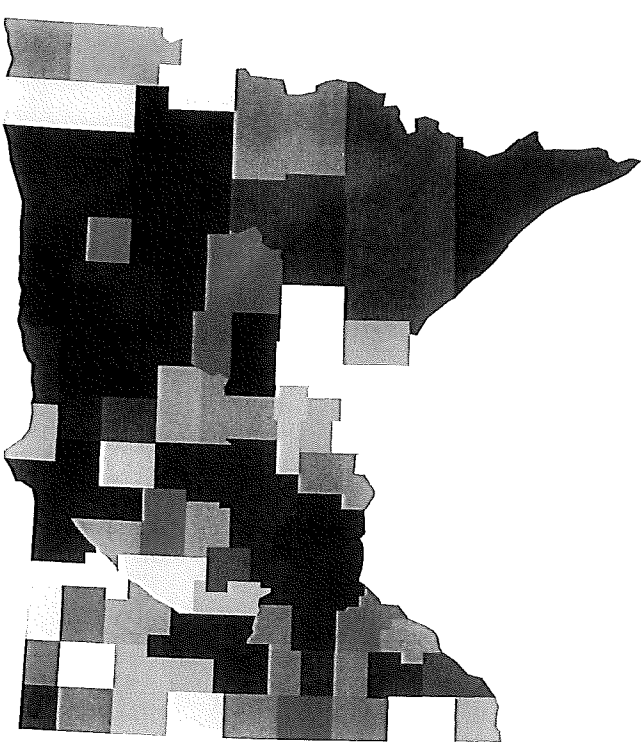
While those numbers represent improvement, they also show far the state has to go, especially since those last pockets of the state without high-speed internet are typically the most difficult to bring broadband to, said Judy Erickson, a spokeswoman for the Minnesota Rural Broadband Coalition.

Her organization, which includes counties, electric cooperatives, banks, nonprofits and more, is supporting House File 7, the \$70 million bill introduced by Rep. Rob Ecklund, DFL-International Falls.

MacKenzie, the state's broadband office director, said that \$70 million is based on a recommendation from the broadband task force aimed at keeping the state on track to meet its 2022 goal of 25/3 speeds.

## Percent of households served by 25mbps down/3mbps up broadband, 2018

+  
-



Percent  
40  
50  
60

Source: Minnesota DEED

MacKenzie said there isn't an estimate for how much it will cost to reach the 2026 goal for now, partially because it's difficult to forecast what will happen with federal and private dollars in the future. But she stressed that the state will not be finished working on broadband once it reaches the lower speeds of the 2022 goal.

"I want to be a little bit careful about not establishing the expectation that 2022 is a hard stop and we're done," MacKenzie said. "And I know that a lot of people are anxious to find that 'when do we get to say we're done' and, and to be frank, we live in a world that's constantly changing and it's not clear when we're going to be done. But we are making what I think is significant progress."

Erickson said one reason her organization is not pushing for more money now is to preempt the notion that lawmakers can approve one big chunk of cash and call the job done. The broadband bill would also build that same \$70 million into future budgets, which Erickson said is critically important to consistently build broadband infrastructure. The money for the grant program has generally been approved in one-time allotments.

**Political chances**

Despite the price tag of the broadband bill, Erickson said she believes there is political will to pass it. DFLers in control of the House introduced the measure as one of their first 10 bills of the year, signaling its place as a top priority. At least some Republicans in the House and

Senate have supported it, too. Plus, both parties have largely backed spending on rural broadband in the past.

Telecom companies don't appear to be a big hurdle either early in the legislative session. Forde said Midco generally supports the state's broadband grant program. Representatives for Frontier and CenturyLink, two companies that provide internet service in Greater Minnesota, did not respond to requests for comment.

But the state's approach to broadband hasn't been without controversy. Some in the GOP have complained about the state's preference for fiber-optic cable, which is reliable but pricey. Rep. Pat Garofalo, R-Farmington, has argued for more reliance on cheaper options, such as internet by satellite or what's known as fixed wireless, where homes get service from a signal placed high on a nearby building, like a water tower.

Telecom businesses have also bristled at some new broadband projects in areas where private companies already offer some form of internet, saying focus should be on unserved communities. The Freedom Foundation of Minnesota, a conservative think tank, has argued against government-owned broadband in any form, saying it reduces competition and innovation and is a risk to taxpayers. The foundation cites, among other stories, the financial collapse of Lake County-owned broadband service known as Lake Connections.

For now, Ecklund said the fight at the Legislature will likely be about how much money to give the broadband program. But he said the slow internet service hits close to home, affecting his neighbors, local businesses and even his own house: Rob and his wife, Joan, cannot each have a laptop on the internet at the same time "because neither one of us will get service. In a nutshell, that's why I'm pushing it."

**Related Tags:** broadband high speed internet

#### ABOUT THE AUTHOR:



#### **Walker Orenstein**

Walker Orenstein covers the environment and workforce issues for MinnPost. He previously covered state government and politics for The (Tacoma) News Tribune. A St. Paul native, he is a graduate of the University of Washington. He can be reached at [worenstein@minnpost.com](mailto:worenstein@minnpost.com), and you can follow him on Twitter at [@walkerorenstein](https://twitter.com/walkerorenstein).

#### COMMENTS (10)

# POTs and PANs

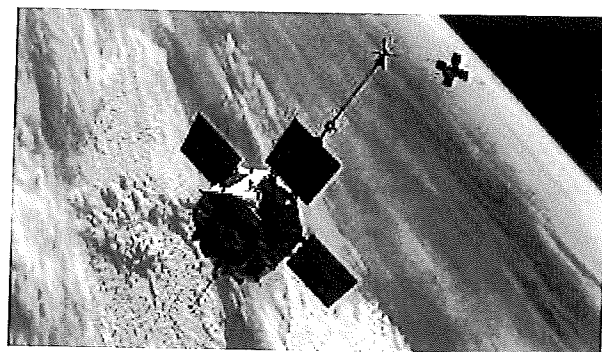
## Pretty Advanced New Stuff from CCG Consulting

January 30, 2019

### The End of Satellite TV?

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(<https://potsandpansbyccg.com/2018/11/01/delays-in-satellite-broadband/satellite-2/#main>) DirecTV launched their most recent satellite in May of 2015. The company has launched 16 satellites in its history, and with twelve remaining in service is the largest commercial satellite company in the world. AT&T, the owner of DirecTV announced at the end of last year that there would be no more future satellite launches. Satellites don't last forever, and that announcement marks the beginning of the death of DirecTV. The satellites launched before 2000 are now defunct and the satellites launch after that will start going dark over time.



AT&T is instead going to concentrate of terrestrial cable service delivered over the web. They are now pushing customers to subscribe to DirecTV Now or WatchTV rather than the satellite service. We've already seen evidence of this shift and DirecTV was down to 19.6 million customers, having lost a net of 883,000 customers for the first three quarters of 2018. The other satellite company, Dish Networks lost 744,000 customers in the same 9-month period.

DirecTV is still the second largest cable provider, now 2.5 million customers smaller than Comcast, but 3 million customers larger than Charter. It can lose a few million customers per year and still remain as a major cable provider for a long time.

In much of rural America, the two satellite companies are the only TV option for millions of customers. Households without good broadband don't have the option of going online. I was at a meeting with rural folks last week who were describing their painful attempts to stream even a single SD-quality stream over Netflix.

For many years the satellite providers competed on price and were able to keep prices low since they didn't have to maintain a landline network and the associated technician fleet. However, both satellite providers looked to have abandoned that philosophy. DirecTV just announced rate increase that range from \$3 to \$8 per month for various packages. They also raised the price for regional sports networks by \$1. Dish just announced rate increases that average \$6 per month for its packages. These are the two largest rate increases in the history of these companies and will shrink the difference between satellite and terrestrial cable prices.

These rate increases will make it easier for rural cable providers to compete. Many of them have tried to keep rates within a reasonable range of the satellite providers, and these rate increases will shrink the differences in rates.

In the long run the consequences of not having the satellite option will create even more change in a fast-changing industry. For years the satellite companies have been the biggest competitor of the big cable companies – and they don't just serve in rural America. I recently did a survey in a community of 20,000 where almost half of the households use satellite TV. As the satellite companies drop subscribers, some of them will revert to traditional cable providers. The recent price increases ought to accelerate that shift.

Nobody has a crystal ball for the cable industry. Just a year ago it seemed like industry-wide consensus that we were going to see a rapid acceleration of cord cutting. While cord cutting gets a lot of headlines, it hasn't yet grown to nearly the same magnitude of change that we saw with households dropping telephone landlines. Surprisingly, even after nearly a decade of landline losses there are still around 40% of homes with a landline. Will we see the same thing with traditional cable TV, or will the providers push customers online?

Recently I've seen a spate of articles talking about how it's becoming as expensive to buy online programming as it is to stick with cable companies, and if this becomes the public perception, we might see a slowdown in the pace of cord cutting. It's possible that traditional cable will be around for a long time. The satellite cable companies lost money for many years, mostly due to low prices. It's possible that after a few more big rate increases that these companies might become profitable and reconsider their future.

Posted by CCGConsulting in The Industry

Tagged: AT&T, cord cutting, DirecTV, Dish Networks, satellite TV, Verizon

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# ESHOO INTRODUCES LEGISLATION TO RESTORE LOCAL CONTROL IN DEPLOYMENT OF 5G

January 15th, 2019

**WASHINGTON, D.C.** – Yesterday Congresswoman Anna G. Eshoo (CA-18) introduced H.R. 530, the *Accelerating Wireless Broadband Development by Empowering Local Communities Act of 2019*, legislation to overturn Federal Communications Commission (FCC) regulations limiting the ability of local governments to regulate the deployment of 5G wireless infrastructure.

“Having served in local government for a decade on the San Mateo County Board of Supervisors, I understand and respect the important role that state and local governments play in protecting the welfare of their residents,” **said Rep. Eshoo**. “5G is essential for our country’s communications network and economy, but it must be deployed responsibly and equitably. The FCC let industry write these regulations without sufficient input from local leaders. This has led to regulations that restrict cities from requiring carriers to meet the needs of communities in which they want to operate.”

“The FCC forced Congress to act by failing to listen to reasonable input from communities across the country, cowering to industry interests, and failing to put the public interests first. This legislation will preserve the ability of local communities to negotiate fair, market-based broadband deployment agreements and close the digital divide that exists for 34 million low-income and rural Americans,” **said Sam Liccardo, Mayor of San Jose**. “We want to thank Rep. Eshoo for her leadership on this issue.”

“We applaud Congresswoman Eshoo for her leadership on behalf of local governments,” **said Clarence Anthony, CEO and Executive Director of the National League of Cities**. “Cities, towns and villages are eager to welcome new technologies like 5G, but must retain the authority to protect the diverse needs of residents and communities. Federal agencies should work more closely with local leaders to understand those needs, which the FCC’s actions failed to do.”

“Counties are committed to ensuring that all residents have access to affordable broadband while timely 5G facilities and services are deployed. As we achieve these goals, we must also fulfill our responsibilities as trustees of public property and rights-of-way, without adding unnecessary red tape,” **said Matthew Chase, Executive Director of the National Association of Counties**. “We thank Representative Eshoo for introducing a bill that preserves the role of counties and other local governments as true partners in advancing 5G technology everywhere.”

“We welcome Congresswoman Eshoo’s effort to set aside the Federal Communications Commission’s actions that unnecessarily benefit one industry at the expense of our communities,” said **Nancy L. Werner, General Counsel of the National Association of Telecommunications Officers and Advisors**. “They do nothing to ensure that all communities—rich, poor, urban, rural, and everything in between—will see the benefits of increased broadband deployment. Local governments have the ultimate responsibility for safeguarding their communities.”

### **Background**

On August 2, 2018 and September 26, 2018, the FCC adopted regulations limiting the abilities of cities and states to regulate small cell sites (e.g., pole attachments) needed for the deployment of 5G. The actions limit the type and amount of fees cities and states may charge, set “shot clocks” as low as 60 days for cities and states to authorize proposals, and limit non-fee requirements cities and states may institute. The regulations began taking effect on January 14, 2019.

The City of San Jose is leading a coalition of nearly 100 cities, towns, counties, and associations of localities in suing the FCC arguing that the agency lacks the statutory authority to issue such regulations. The Cities of Burlingame, San Bruno, and San Francisco have also joined the City of San Jose in its lawsuit. Rep. Jackie Speier (CA-14) joined Rep. Eshoo as a cosponsor of the bill.

# Why 5G Isn't Here Yet Even Though We Are Being Told It Is

Simon Rockman Contributor

Consumer Tech I have been writing about mobiles and technology for 40 years.

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Vodafone, Qualcomm And Ericsson, Lab Test 5G Smartphone Qualcomm

This is a 5G phone. It's a reference device built to allow networks to experiment. There is however a problem. The first 5G standards have not yet been ratified. While most people are used to a ten year cycle – Analogue in the mid 1980s, 2G in the mid 1990s, 3G in the mid 2000s and so on, which means mass adoption of 5G in 2025 or so the 5G marketing machine is running at full tilt and today's press release reads "Vodafone UK Teams Up With Qualcomm And Ericsson To Lab Test 5G Processor And Smartphone Form Factor Device".

This is technically very impressive and exactly what the right thinking organisations should be doing, what's missing is any tempering of expectation that you'll be able to pop into a Vodafone store and buy something like this any day now.

What's not running as fast as the marketing is the technology development and the standards approval. There is an engineering definition of what 5G is. While the different G standards run at ten year intervals there are stricter standards for the technologies in the form of 3GPP releases. There is a slow drift across the G type technologies adding techniques for more bandwidth, lower power requirements and features such as broadcast video or push to talk.

The next release, release 15, is the one which is officially designated as 5G. A release 14 phone, network or whatever isn't 5G but a release 15 one is. Despite being the first release to support NR or New Radio which is the important bit for 5G it's an artificial designation, not only because releases 16, 17 and so on are also 5G but because release



15 is running late and has been split into three parts and now won't be frozen until March. Then there are a lot of stages before it turns into a commercial product.

None of that will stop the marketing departments selling you something they can call 5G. Even when they do have a 5G network and 5G products not all of the network will be 5G, it's going to be a slow burn. While mobile networks, particularly American mobile networks will be selling 5G in 2019, the landmark event will be in 2020: The Tokyo Olympics.

Japan has always led the world in the adoption of new mobile technologies. An apps store was old-hat in Japan when Apple popped up with iTunes, 3G and 4G were available well ahead of the same technologies in the west. So combine a new fast technology with the biggest possible sports event and we'll see the best possible showcase. It's not just about bandwidth, 5G is specced to allow a million devices per square kilometre, so think of the options for everyone in a stadium filming an event and those at home being able to choose any of those viewpoints. Or think of a camera on a basketball hoop, or the handlebars of a track cycle.

That's not to belittle the achievement behind the announcement, what Vodafone, Qualcomm And Ericsson did was make a 3GPP Rel-15 spec compliant 5G NR call device which looks like a smartphone using the 39 GHz spectrum. It utilised Ericsson's commercial 5G NR radio AIR 5331 and baseband products and a mobile test device with integrated Qualcomm Snapdragon X50 5G modem and RF subsystem. Doing this in the Ericsson Lab in Kista, Sweden in February must have been, er, interesting for the Qualcomm engineers visiting from San Diego.

The lab data call is a continuation of the interoperability development testing (IODT) that was announced in 2017 which used Ericsson's 5G NR pre-commercial base stations and Qualcomm Technologies' 5G NR UE prototypes, and further shows the companies' commitment and ability to achieve milestones that pave the way for commercial launches of 5G NR standard-compliant infrastructure, smartphones and other mobile devices. In addition, these early trials and milestones will enable global operators and OEMs to conduct tests in the field using their own networks and devices.

Using 39 GHz is interesting, this millimetre wave frequency is one of the features which distinguishes 5G from those technologies which are an evolution of 4G. It's certainly not one that will be in the shops any time soon. And it may prove to not be that important. People tend to want things they can see, in the early 2000s Nokia finally got to grips with 3G. It had been slow to follow the lead of NEC and Motorola. But finally Nokia, got it right and had some decent 3G phones. But what sold that Christmas wasn't the latest 3G phone, it was the Motorola Razr in pink.

We'll find for all the hype about 5G, what really makes people buy phones in 2019 is the folding screen.

## Can 5G Backhaul Itself?



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News Analysis

Mike Dano,


Editorial

Director, 5G &

Mobile

Strategies

2/7/2019

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The movie *Inception*, starring Leonardo DiCaprio, features characters going into dream worlds, and then going into dream worlds within those dream worlds and then dream worlds within *those* dream worlds -- until you can barely remember what's going on.

Will 5G be the same way?

Yes, there is a parallel between 5G and the movie *Inception*, but you'll have to stick with me here because we're going to get a bit technical. But I promise it will be worth it, in the end (and hopefully the end of this article will be more satisfying than the spinning top at the end of *Inception*).

Let's start at the beginning: 5G is all about a new wireless technology that transmits data really fast between a cell tower and a phone, right? That's true, but equally important to 5G is what that cell tower is connected to -- that's called backhaul. After all, it's that backhaul connection that plays a big role in how your phone ultimately reaches Facebook's servers or Netflix's CDN.

Most of the time, at least in this country, that cell tower routes (backhauls) the traffic it collects within its coverage area through a fiber running between the tower and a nearby switching center. Once the traffic hits that switching

center, it's then routed to its destination along the nation's core Internet backbone. Think of it like driving around a city until you get onto the interstate.

Now here's where *Inception* kicks in: What if that cell tower didn't need a fiber connection? What if it just beamed its traffic to the switching center wirelessly? Dreams within dreams.

And then what if that switching center was actually located on a satellite? Or a balloon? Dreams within dreams within dreams!

Now, I don't want to go too far along this line of reasoning, mainly because there aren't many network technicians who do -- at least in the United States. But in other countries? The story is a little different.

According to a report last year by Ericsson, 40% of backhaul connections are expected to be based on wireless technology by 2023. And the standards group ETSI recently reported that wireless backhaul technologies serve more than 50% of the total cell site connections worldwide today. "They are apparently key solutions to address demands of mobile access networks at fast pace and in an economical way," ETSI reported of those wireless backhaul links.

As with most things though, the situation is a little different here in the United States. "We estimate North America is close to 26%" in its usage of wireless backhaul, wrote Jimmy Yu of research firm Dell'Oro.

But how might that situation change as we move into a 5G future?

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You're invited to attend Light Reading's Big 5G Event! Formerly the Big Communications Event and 5G North America, Big 5G is where telecom's brightest minds deliver the critical insight needed to piece together the 5G puzzle. We'll see you May 6-8 in Denver -- communications service providers get in free!

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### **Speeding up wireless backhaul**

Some are firm believers in a wireless backhaul future. "Many of our customers have asked us if we think microwave transport can handle the demands of a 5G radio access network," wrote Shane McClelland, head of transport in North America for equipment vendor Ericsson. (Microwave is often used as a synonym for wireless when discussing backhaul.) "The answer is yes."

"It's the customer's decision what they want to use," acknowledged Hans Mähler, head of microwave systems at Ericsson. However, he added: "What we want to show is that there's a really good alternative to fiber."

Mähler is referring to a recent test Ericsson conducted with Deutsche Telekom to show off a commercial wireless backhaul link running at 40Gbps

across a distance of around 0.87 miles by combining two 2GHz millimeter wave (E-band) channels, with latency of less than 100 microseconds (that's 0.1 milliseconds). And in case you're wondering: Yes, those metrics are impressive.

"While fiber is an important part of our portfolio, it is not the only option for backhaul," said Alex Jinsung Choi, SVP of strategy and technology innovation for Deutsche Telekom, in Ericsson's press release about the test.

(It's worth pointing out here that Ericsson definitely has skin in the game -- according to Dell'Oro, the top three vendors for wireless backhaul products in North America in the first nine months of 2018 were Nokia at 30% market share, followed by Aviat at 16% and Ericsson at 10%.)

Wireless backhaul "is no revolutionary technology... It's really a known technology," said Ericsson's Jonas Hansryd, head of the company's microwave and millimeter-wave research, adding that wireless backhaul continues to improve as new wireless technologies -- including some of the elements in the 5G standard -- hit the market.

Further, Hansryd explained, Ericsson will likely be able to get even better performance in the future when it applies higher spectrum bands like the W Band (100 GHz) and the D Band (150 GHz) and additional wireless technologies like MIMO to wireless backhaul connections.

Incredibly, Ericsson's Hansryd and Mähler explained that wireless backhaul can even support lower latency than fiber backhaul. Meaning, if you want super duper low latency speeds, you actually want to use wireless backhaul, and you don't want to use fiber.

"Free air is almost the same speed as light, but if you take light in another medium, like glass [in a fiber connection], it's lower, based on the diffraction index," Mähler said, adding that the theoretical maximum measurement of latency across 10 km of fiber would be about 50 microseconds, whereas wireless backhaul would lower that to 30 microseconds across the same distance.

"All the big stock markets, like for instance between Chicago and New York ... for where you need to have a really low latency when you have a remote service that is doing the buying and selling, they are going over microwave just to have the lowest latency." Hansryd added.

So wireless backhaul is ultimately better than fiber backhaul, right? Well, not really, at least according to most top US operators.

### **Verizon, Rise and others talk backhaul**

"We do use microwave in certain special niche conditions. Clearly, fiber is best simply because of its ability to expand, especially when you talk about gigabits coming from the cell. When you have many users using gigabits, fiber is definitely the medium to get that done," said Mike Haberman, VP of Verizon's network engineering. He declined to say exactly how much of

Verizon's traffic was backhauled through wireless. "It [fiber] is certainly available in most all places. It's really come a long way in the last 10 years. We especially like dark fiber, in that way you can expand it and do what you need to do."

In fact, the Fiber Broadband Association recently reported that fiber surpassed DSL to become the second most common connection for home internet in North America after cable. The association added that fiber now passes 41 million unique homes in the United States and connects 18.6 million homes -- a 17% increase in homes passed by fiber since 2017.

Concluded Verizon's Haberman: "From our standpoint fiber is the way to go. Now certainly there have been some discussions in the industry for wireless backhaul... But right now, the preferable way to go is fiber."

It's those kinds of comments that have in part drummed up interest in fiber providers. "Investments in U.S. fiber networks have become an area of focus for infrastructure funds looking to take advantage of the industry's tailwinds and strategic buyers who want to diversify their business or gain operating leverage," said CoBank's Lead Communications Economist Jeff Johnston, in a recent report. "As a result, fiber valuations have increased approximately 30 percent over the last 12 months, and we expect them to remain elevated for the foreseeable future."

But Verizon has focused much of its attention on covering urban and suburban areas with LTE for smartphones. Other operators, those in different areas with different business models, have a different view.

"90% of Rise's customers are served by some flavor of wireless backhaul. The remaining 10% is on the towers or locations in which we have circuits/fiber connects to the tower," said Jeff Kohler, the co-founder, and chief development officer of Rise Broadband, likely the nation's largest fixed wireless internet provider. Rise counts roughly 200,000 customers across rural parts of Colorado, Idaho, Nevada, Oklahoma, Texas, Utah and elsewhere, offering speeds of 5 Mbps to 50 Mbps, and up, through technologies including LTE.

Kohler explained that Rise runs its backhaul across a range of spectrum bands from 5GHz to 70GHz, though he said the most popular bands are 11-24GHz. He said that most of Rise's customers use around 150GB of data per month, and therefore Rise can economically get 1GB of capacity to its tower wirelessly, which he said is suitable for even a heavily used tower site.

However, when usage runs higher than that, Kohler said Rise turns to fiber. "Distance is a factor: at less than 1/4 mile, wireless is a suitable replacement and even suitable over longer distances with normal-to-lower backhaul requirements. For high bandwidth needs over 1GB and longer distances, it is not a suitable replacement."

And what of 5G? "The urban use case, and all of the applications of 5G, will

be an urban phenomena for the foreseeable future and will demand much more bandwidth and lower latency," Kohler explained. "Therefore, fiber would be a safer choice for these higher populated areas."

Not surprisingly, Rise isn't the only fixed wireless internet provider using a variety of backhaul technologies: "Using a combination of wireless and fiber backhaul gives you the flexibility to serve sites that may not have easy or cost-effective access to fiber. In network deployment, you want to have options, and wireless backhaul is another tool in the toolkit," said a representative from Starry, which is in the midst of a major fixed wireless buildout to more than a dozen of the country's biggest cities.

But as the wireless industry -- including the nation's biggest carriers like AT&T and Sprint -- move toward 5G deployments, wireless backhaul could play a larger role. Though probably not a starring one.

### **Sprint, AT&T see growth in wireless backhaul**

"Small cells will become more intelligent, so as we deploy more of these to serve at let's say a city park, they can be deployed in a manner -- not today, but in the near future -- where they can actually form a mesh network in terms of how they connect to each other and backhaul the traffic," Andre Fuetsch, President of AT&T Labs and the operator's CTO, told ZDNet. "So you would only essentially need one particular node that would have to have a fiber connection. And this is important because today, you're basically having to make sure that there's a fiber facility to serve it; in the future, we have the option to take advantage of millimeter-wave as a backhaul mechanism, and then over time as demand grows, it buys you time to eventually fiber them up."

It's worth noting here that small cells have been discussed as a major element of future 5G networks, considering operators are working to densify their networks and transmit the kind of short-range, millimeter-wave signals well-suited for small cells.

Some network construction companies largely agree with Fuetsch's outlook on wireless backhaul, particularly as it relates to 5G and small cells. "Fiber backhaul has been the topology in use with 3G and 4G LTE networks," explained Tormod Larsen, CTO at ExteNet Systems, a network construction company that focuses in part on small cell networks. "The network densification requirements with 5G may require 'short laterals' from our fiber grid utilizing wireless backhaul, essentially complementary to the fiber backhaul. Fiber will remain the longer-term solution, with wireless backhaul being used in shorter distances and hard-to-reach areas."

As a major nationwide wireless network operator that is planning to launch 5G NR in nine markets in the coming months, Sprint provided perhaps the clearest look into the potential of wireless backhaul. The company said that microwave represents about 20% of its macro tower backhaul; the rest is fiber-based. The operator also boasted that it has one of the largest microwave backhaul networks in the country, with over 10,000 in-service

links. Further, Sprint said its growing deployment of outdoor small cells rely heavily (85%) on UE Relay for backhaul. (Sprint's Magic Box is a User Equipment (UE) Relay product that backhauls traffic through the operator's licensed spectrum, including 2.5GHz.)

Further, Sprint uses a range of backhaul technologies (Docsis, Ethernet, fiber and microwave) spectrum bands (licensed spectrum bands 6 GHz, 11 GHz, 18 GHz, 23 GHz; lightly licensed 80 GHz; and unlicensed sub-6 GHz) and configurations (line-of-sight and non-line-of-sight).

So does that mean Sprint plans to increase the use of wireless backhaul technologies as it moves to 5G? "Yes," the operator said in responses to questions from Light Reading. "As microwave technology throughput capabilities continue to advance to 10 Gbps and beyond, we do see certain use cases that will be viable for supporting 5G backhaul. 2019 will see the arrival of multi-band systems capable of high capacity via 80 GHz paired with a higher availability 18 GHz or 23 GHz link to handle fade events."

However, Sprint said that its current backhaul mix is shifting toward wired backhaul for its macro sites, although the operator said wireless would continue to play a significant role, particularly in areas where there is limited or no Ethernet competition and backhaul connection prices remain high.

#### **A lackluster market**

In general, though, analysts' attitude toward the market potential for wireless backhaul can be described as "meh."

"We have been tracking wireless backhaul for years, and honestly it has never accelerated because operators prefer to future-proof with fiber," said Joe Madden of Mobile Experts. "So it has turned out to be a fairly boring segment of the market."

And Earl Lum of ETL Wireless Research said that wireless can be a perfectly suitable replacement for fiber if the bandwidth requirement is not expected to grow dramatically over time, or where digging a fiber trench would be impossible for legal or physical reasons. However, he said that wireless backhaul could be affected by a variety of issues including severe wind or weather that would knock a transmitter out of alignment, or a pole-mounted site that might not have the room to fit in a wireless backhaul transmitter.

And that relatively ho-hum view of wireless backhaul is also held by Ericsson's Hansryd and Mähler, the two executives who are probably the deepest into the Inception-like nature of wireless and wireless backhaul.

"You really need to have multiple backhaul solutions," Mähler said, explaining that it makes sense to use fiber where it's available (and it's readily available in large parts of developed countries like Japan and the United States) and to use wireless where it makes sense (like in developing countries, where it's really expensive to deploy fiber).

"They are two complementing technologies," he said.



# POTs and PANs

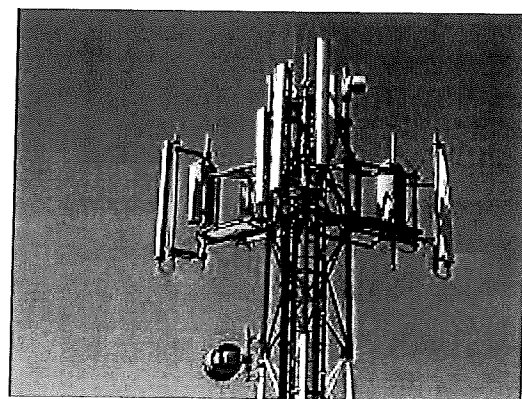
## Pretty Advanced New Stuff from CCG Consulting

February 7, 2019

### What's the Future for Big Towers?

#### 2 Comments

(<https://potsandpansbyccg.com/2016/11/02/lies-damned-lies-and-5g/4g-antenna/#main>) Late last year AT&T announced that it had contracted for the construction of hundreds of new big cellular towers through Tillman Infrastructure. AT&T and Verizon jointly struck a deal to build with Tillman in 2017 and by late last year some of the new towers came online. This doesn't sound like big news because towers are built every year – but these new towers were built to directly compete with and replace existing big towers. AT&T's announcement was a warning to existing tower owners – lower your prices or we'll bypass you.



You can't blame AT&T and Verizon for this because they pay some of the highest prices for any telecom products to hang radios and to bring bandwidth to big towers. To a large degree, this is a problem of their own making, and the history of big towers is a great example of economics that has gone awry.

When the two companies first got into the cellular business they mostly built their own towers. There were some tall towers in existence – some to support public safety radio networks and many more that were part of the AT&T, MCI, and Verizon microwave backbone networks. You might remember the towers with the big horn antennas. When AT&T longlines started to replace microwave backhaul with fiber in the 1980s they sold the whole tower network to a newly formed company, American Tower. American Tower went on to remove the big horn antennas and leased space back on these towers to AT&T and Verizon for cellular use.

Within a few years, both big cellular carriers agreed to lease towers almost everywhere from American Tower and a few other big tower companies. At the time, both AT&T and Verizon were spinning off huge cash from the rapidly growing cellular business and they both decided to avoid the capital costs of building towers and allowed others to invest in the key infrastructure component of cellular networks. Both carriers also made similar choices about allowing others to construct the fiber needed to connect to their cell sites. Their decision to avoid capital costs turns out to have been a giant mistake in the long run.

Today, cellular companies are feeling huge pressure from competition as the prices of cellular plans have tumbled. Had the big carriers decided years ago to own their key infrastructure – towers and fiber – they would have minimal costs for operating these assets today. Instead, they are paying ever-escalating prices for tower space and fiber transport.



AT&T is now demanding big reductions in tower space rental prices. Building the new towers is an obvious threat that the company is willing to bypass anybody who won't cut prices. A few hundred new towers is barely a blip in the tower market, but the AT&T message is clear. Last year Verizon used the same tactic to put pressure on fiber providers to lower transport costs – at the risk of Verizon building fiber to their towers and bypassing existing fiber.

All of this is happening at a time when we're also seeing the proliferation of small cell sites. When I look at the architecture of cellular networks, a significant number of tall towers could be replaced with a network of small cell sites. The cellular network today is really two separate networks. There is the network built to provide cellular traffic along major highways – you see these towers at every few exits along every interstate highway. These towers are not likely to go away, and in fact, the tall towers are needed to provide coverage across large stretches of highway.

But there are a lot of cellular towers that have been built to serve where people live and work. There has been a long-standing unease in many communities about having the big towers in somebody's back yard. Over time the cellular companies can make many of these towers obsolete as the smaller cell sites take over. (Of course, there is also now unease about having a lot of smaller towers in neighborhoods).

The big tower companies understand this transition. American Tower is leading the way in acquiring pole rights and is building electronics vaults along city streets for small cell sites to support 5G. Like other parts of the telecom market, the cell tower market segment is facing big changes. Just five years ago the big cellular carriers, the tower companies, and the fiber transport companies were all making big money from the cellular market. Today, all are feeling the pinch due to the advent of cellular price competition. It's going to be interesting to see if AT&T and Verizon make the same choice all over again and lease small cell sites rather than building themselves.

Posted by [CCGConsulting](#) in [The Industry](#)

Tagged: [American Tower](#), [AT&T](#), [small cells](#), [Tillman Infrastructure](#), [Verizon](#)

## 2 thoughts on “What’s the Future for Big Towers?”

### 1. **Anita Gallucci** says:

February 7, 2019 at 1:13 pm

Would like to know your thoughts on the future of municipal water tower sites.

### Reply

#### o [CCGConsulting](#) says:

February 7, 2019 at 1:20 pm

The same issues would apply to water towers if they are being used for cellular. The big cell companies are likely to ask for lower rates and might bypass if the rates aren't lowered. However, a lot of the radios put on water towers are for other purposes like fixed wireless, public safety or private radio systems. I don't see any trends right now that would change those uses.

### Reply

# We Need a National Rural Broadband Plan

The government has given a lot of money to major telecommunications companies without much regulatory accountability.

By Christopher Ali

Since the 1930s, policymakers have known that rural communications is a “market failure” — something that happens when private companies cannot or will not provide a socially desirable good because of a lack of return on investment. At that time, electricity and telephone companies were simply unwilling to enter rural America: The population was too sparse and the geography too vast. As a result, President Franklin Roosevelt created the Rural Electrification Administration in 1936 to provide loans and grants to rural electric and telephone companies. It was a tremendous success: Within 20 years, 65 percent of farmers had a telephone and 96 percent of them had electricity.

We have a similar problem with rural communications today — not with telephones or electricity but with broadband internet. In 2017, a full 30 percent of rural Americans (or 19 million people) and 21 percent of farms lacked broadband access. What we need today to solve this digital divide is a renewed federal commitment to rural communications. We need a national rural broadband policy, demonstrating that the United States is serious about becoming a fully connected nation.

The Rural Utilities Service — the successor to the Rural Electrification Administration — has subsidized internet connectivity since 1995. It is one of two federal agencies charged with subsidizing rural broadband: The Federal Communications Commission provides about \$8.8 billion per year in broadband subsidies (rural, tribal and low income) with at least \$4.6 billion earmarked for rural. The Rural Utilities Service (a division of the Department of Agriculture) metes out about \$800 million per year for rural broadband loans and grants. Last summer, Congress allocated an extra \$600 million to the Rural Utilities Service to subsidize broadband projects for the most underserved communities. This is in addition to the \$7.5 billion in rural broadband loans and grants provided by the 2009 Recovery Act.

Despite the large amount of funding coming from the Rural Utilities Service and the F.C.C., rural America has not seen broadband deployed and adopted at the same speed and effectiveness that it had with electricity and telephone service almost a century ago. The reason for this lag is a lack of coordinated federal policies, which in turn has allowed major telecommunications companies to receive a large portion of these funds without much regulatory accountability. An opaque set of grant and loan stipulations make it difficult for communities to apply for funding, and in some states, a series of laws actively prohibit or inhibit towns and cooperatives from wiring their own communities.

I recently traveled to the Midwest to find out where and how federal broadband policies have failed rural America. I spoke with residents, business owners, broadband providers, farmers and officials, and they all told me about the need for high-speed connectivity and a renewed federal strategy.

On the trip, I learned how high-speed broadband keeps professionals living and working in rural America, like the insurance agent I met in Rock County, Minn., who no longer has to lease a second office to digitally file paperwork. It keeps rural businesses competitive, like the radio station in Rock County that no longer needs to subscribe to two Verizon accounts, paying over \$1,000 per month for internet service. And it keeps rural students studying, since around 70 percent of teachers assign homework that requires an internet connection. Rock County is one example of how communities in rural America can take advantage of the opportunities afforded by broadband.

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Almost every state has a broadband deployment plan, Minnesota foremost among them. With so many plans, however, come as many definitions of broadband, target speeds, eligibility requirements for grants and a host of unique priorities. To ensure that high-speed broadband is available for all rural Americans, regardless of state, we need a national rural broadband plan. Standardizing state rural broadband policies isn't enough: We need a plan to identify and galvanize stakeholders — not just the major telecommunications companies — to inspire change in our current policy approach and democratize the funding process, and to champion the cause of rural broadband across the country. President Franklin Roosevelt and the Rural Electrification Administration did it in 1936 with electricity. We can do the same today.

A national rural broadband plan would designate a single agency — preferably the Rural Utilities Service, with its century-long relationship with rural communities and offices in every state — as the primary coordinator for rural broadband. Today we have two agencies — the F.C.C. and the Rural Utilities Service — with two different, and sometimes conflicting, agendas controlling a lot of money. A designated point agency is crucial to coordinate federal expenditures and to encourage more data sharing, collaboration and coordination between the F.C.C. and the Rural Utilities Service.

This plan would mandate the creation of a new national broadband map, using granular and testable data rather than what we have now, where broadband providers report advertised rather than actual speeds to the F.C.C., and where broadband deployment is calculated by census block rather than by household. The F.C.C., which manages the current national broadband map, has grossly overestimated broadband deployment throughout the country because when a single building in a census block is reported to have broadband, the entire block is considered “served.”

It would streamline the application for subsidies from the F.C.C., and grants and loans from the Rural Utilities Service, making it easier for small companies to apply. As one small provider told me, "You know, of all the things I've tried to do in my life, the hardest thing I've ever tried to do is to navigate" how to get funding from the Rural Utilities Service.

We need to change the relationship between large telecommunications companies and federal subsidies. A national rural broadband plan would democratize the rural broadband subsidy system, abandoning the legacy rules that force the Rural Utilities Service and F.C.C. to give the bulk of subsidies to the major telecommunications companies, which deliver only the bare minimum speeds to comply with the law. This money should be provided on a competitive basis without reserving the bulk for the major companies and leaving the smaller ones, like local independent providers, cooperatives and municipalities to fight for the scraps.

For example, CenturyLink receives over \$505 million a year from the F.C.C. but by law needs to provide only the incredibly slow download speed of 10 megabits per second and upload speeds of one megabit. Those numbers are far below the current definition of "broadband," which is download speeds of 25 megabits per second and upload speeds of three megabits.

There are true heroes of rural broadband, like Alliance Communications, the cooperative that manages the fiber optic network in Rock County, Minn., and The People's Rural Telephone Cooperative, which brought fiber-optic broadband to McKee, Ky., one of the poorest communities in the state. These local companies and cooperatives are more interested in serving their members and communities with a public service than in a short-term return on investment. There are so many who are in need of these providers, like farmers, who are all too often left out of the conversation but for whom broadband to the farm would mean a new era of American agriculture.

Last, this national rural broadband policy would show the United States is serious about global competition in community connectivity, agriculture, data processing, telemedicine, education and a host of other industries. Our lack of universal broadband means we are losing that competition. We are losing because we are not taking all stakeholders into account. We are losing because of a lack of coordinated and coherent policies. We are losing because major telecommunications companies get the bulk of funding and fail to deliver. We are losing because the agencies in charge of rural broadband do not even know who has broadband and who does not.

The reason rural broadband is at the level it is now is the ingenuity and vision of rural communities across the country. They are moving the broadband needle forward despite a lack of coordinated federal policies.

Federal policies should give them a hand.

# America desperately needs fiber internet, and the tech giants won't save us

## Harvard's Susan Crawford explains why we shouldn't expect Google to fix slow internet speeds in the US.

By [Eric Johnson@HeyHeyESJ](mailto:Eric.Johnson@HeyHeyESJ) Updated Jan 10, 2019, 10:36am EST

On the latest episode of *Recode Media with Peter Kafka*, **Recode's** Peter Kafka spoke with Harvard Law School professor Susan Crawford about her new book, *Fiber: The Coming Tech Revolution—And Why America Might Miss It*.

On the podcast, Crawford explained why nationwide access to high-speed fiber internet — already standard in parts of Asia and Europe — is important for everything from the future of work to the successful deployment of 5G wireless networks. She also talked about why Google's ambitious attempt to compete with the telecom giants, Google Fiber, is all but dead.

"They're like Verizon, which did exactly the same thing, backed off from installing fiber," Crawford said. "Their shareholders are impatient with the long-term capital needs involved in making sure that there's great last-mile access in America."

"Nobody builds a bridge assuming that they're gonna make 20 percent a year on that investment," she added. "These are long-term investments that pay off at a rate of, let's say, 5 or 6 percent until the sun explodes. They're great investments, but you would have to have a different profile as a company to be interested in that. And that's not Google's business."

You can listen to *Recode Media* wherever you get your podcasts — including [Apple Podcasts](#), [Spotify](#), [Google Podcasts](#), [Pocket Casts](#) and [Overcast](#).

Below, we've shared a lightly edited full transcript of Peter's conversation with Susan.

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**Peter Kafka:** This is Recode Media with Peter Kafka. That's me. We are here at Vox Media headquarters in New York City. I'm talking with the great Susan Crawford. Hi, Susan.

**Susan Crawford:** Hey, Peter. Thanks for having me.

**Thanks for coming. You are a Harvard Law professor, but I think of you as a smart person who explains the internet to me.**

I think of myself as a technological humanist.

**All right. That sounds less fun.**

Oh, shoot.

**You're the person who explains how the internet works and doesn't work. Specifically, when I have questions about broadband and net neutrality, I go to you. I was just talking to you off the air. We did this in 2014, there was a net neutrality decision, and you should go Google Peter Kafka and Susan Crawford. You'll hear a very, very coached explanation about net neutrality law. What works and what doesn't. Today we're here because you have a book.**

I do!

**It's called *Fiber: The Coming Tech Revolution and Why America Might Miss It*. Just to set this up, we spend a lot of time on this podcast talking about Netflix and Apple and Google and the fight to get things to your living room. We don't really spend much time about physically how that's gonna happen. That's your focus. How the bits get to your screens.**

**You've talked in the past about the dismal state of broadband in this country. This seems like it's a sequel, right? Broadband is miserable, overpriced, controlled by a handful of companies. Same thing with fiber.**

Americans at their best are never cynical. This is the next chapter in the story saying net neutrality is just a symptom, just a little tiny corner of a *giant* story for the country, which is that we have no plan to upgrade our actual connectivity to meet what is standard in many Asian countries. Increasingly in Japan. A lot of Northern Europe. And Americans just don't know about it.

Today, yet another *big* story about Facebook on the front page of the paper. We're all kids on a soccer field looking at the ball in one corner of the field, it's Google and Facebook and Twitter. There is a huge undiscovered story that this book captures about the guys who are actually bringing those platforms to our living rooms and how much power they have and how many scrappy cities in America are taking their destiny into their own hands to make sure there's great network connectivity.

**What is the problem? Is the problem that people don't have enough speed to deliver stuff to their house? They don't have enough choices? That they have enough speed and choice now but they're gonna need more in the future?**

It's actually a deeper, more cosmic problem than that. We're paying rent essentially as a country to a handful of companies that are selling second-rate, extraordinarily expensive internet access.

### **The Comcasts, the Verizons, and AT&Ts.**

It's basically the cable companies. If you live, say, in Austin, you've got one choice of a cable operator, local cable monopoly, who's gonna sell you internet access. And it's extraordinarily expensive. It's asymmetrical, meaning that you're mostly downloading, not uploading.

### **Right.**

This is actually dumbing down the entire country and our ability to compete on the international stage. That's the issue.

**I'm gonna play devil's advocate. I'm sitting in my basement in Brooklyn. I have a nice TV, pretty cheap, I have Netflix, and I was able to watch a great Coen brothers movie. Streamed just fine. I have all the speed I need. I think I'm paying 60 bucks a month. I used to only have one choice, which annoyed me, but now I have two because Verizon showed up. Great.**

You're in an unusual situation.

**I realize that I'm in a very small minority there, that I have a choice of multiple broadband things. Nothing really changed when Verizon showed up. I think my pricing got a little better. My speed got a little better. My life didn't get any better. I'm able to stream the internet and I can watch TV on it. Why do I need more speed?**

Well, you're talking about a very cramped vision of what we use data for. Saying that I can download movies easily is a tiny part of the possibility of being able, say, to work from home in such a way that you feel present in the office. At a cost that doesn't matter to you.

In China, people are paying \$10 a month for much higher capacity — both upload and download — than you have. That is the result of their own industrial policy. We don't have that kind of policy in this country. We don't seem to have a path to get there at the moment.

What's terrible about the story you're telling is that you're saying, "I think of the internet as something for entertainment." Just another broadcast TV screen and not for going to the doctor, getting an education, working, developing a new business that no other country's ever heard of. We won't be able to do that unless we have this tremendous connectivity.

**You spend a lot of time in your book talking about the story of electricity...**

Yes.

**... coming to America. Why is that important for the story of fiber?**

It's an exact parallel. In let's say the '20s, a handful of companies controlled electricity in the United States. They were selling it only to businesses and to a few rich people in selected urban areas. That's it.

**Right. You didn't get electricity to your house.**

Not necessarily.

**Unless you were a very rich person.**

It was not considered to be a utility. It was a private product just like, I don't know, a tuna fish sandwich. Where the tuna fish sandwich market was cornered by one company, you'd pay whatever they wanted to charge you. It wouldn't necessarily be available in your house.

We are walking down that same path with internet access today. Although three-quarters of Americans from *both* parties view it as a utility, as something in which the government should be involved, it's not necessarily present in all corners of the country, extremely expensive, and controlled by a few private companies. We haven't yet gotten to the part of the story where the public gets really worried about this for the future of the country and essentially demands that we get our act together and make sure that this is actually provided on a utility basis and made available cheaply to everybody.

**Right. It's literally not... It's incomprehensible to imagine fiber access being a public policy debate, someone running on this, someone actually getting votes because of this. Both because of just the state of politics specifically right now, there's so much else going on. Also, it's hard to imagine this being a motivating factor.**

As you point out in the book, this is ... FDR was talking about electricity. Lyndon Johnson made his name bringing electricity to the hill country of Texas. There was a time where politicians had real benefit in extending this. The other thing you point out in the book — and I'm just setting you up, right — was when electricity showed up people thought of it as a thing that a light bulb does.

Right.

They didn't think about refrigeration and all the gizmos and all the things. They couldn't comprehend it. When you have a dummy like me saying, "My internet works just fine because I can watch a Coen brothers movie on Netflix." You're saying, "If you had more stuff, more stuff will come."



Exactly. That parallel is so precise, it's almost painful. It's so easy that my grandmother would've called her electricity bill "the light bill." Many people used it just for a single light bulb hanging in their house. There weren't the appliances around yet in common use that created demand for very high capacity and inexpensive electricity. We're right there right now, that other than downloading movies, our imagination is so limited.

The book imagines this future of human presence, particularly eye contact. You and I right now could look each other in the eye. You can't do that over current internet connections in the United States in a way that is satisfying.

**Here at Vox Media we have very nice equipment. But we did a conference call yesterday, people were dropping in and out. It's better than not seeing them, but it's not like being in the same room with them.**

Exactly. If we *could* be in the same room, think about the effects of that on our energy use. On the ability of people to work where they live rather than having to live where they work. New forms of making money on new industries, in fact, are going to emerge once we figure this problem out. Right now, we're not at that stage.

**You're laying out the benefit to fiber. Again, I'm gonna try to set you up here. Why isn't fiber coming right now? What is preventing fiber from showing up at my house?**

This didn't happen by accident. Over the last 20 years, we've ignored this policy area and let the "free market" take its steps.

**You put air quotes around free market.**

Well, because it turns out for these kinds of businesses that involve very high upfront costs, they tend to natural monopoly. There's no reason to have two wires to your house.

**Right.**

What we've ended up with is a few companies dividing the market, so Comcast takes city X and Spectrum takes city Y.

**And even when Verizon and Comcast, at one point, were gonna fight and they spent a couple years on it, and basically made a peace treaty, essentially saying, "All right, we're done."**

Right. They just divide up the market among themselves. So there really isn't a competitive market for high-speed internet access in America. That's the problem.

**But there is high-speed internet access, and you can debate what "high speed" means and you can also debate what "access" means. Right? And you spent time talking about it in the book. There's a good piece about this Times or Journal**

recently saying that there's a community in rural Washington that supposedly has high-speed internet access, but it doesn't really, it's just measured as such.

**But the point is, there is internet access, for the internet throughout America. And if fiber is objectively better and can lead to cool things, why wouldn't the Comcasts and Verizons of the world spend money to bring that to us?**

Because they have no need to, they are unconstrained by either ... They've no incentive to because absent competition, because they divide the market. And absent any oversight, which is what's happened. Up until 2004, we regulated the idea of a basic communications network. *Every* American had a phone connection at a very low price. And our phone network, when it was first introduced, was the envy of the world, covered the entire country.

Today, for high-speed internet access, we don't take that approach. And so, they have no incentive to upgrade their second-class lines, and certainly no incentive to charge people less. Look, these companies aren't evil, they are great American companies. But the unrestrained, private market, dealing with this kind of infrastructure question, is always going to end up soaking the rich for as much as they can, controlling markets, leaving out huge parts of the country, and not upgrading their facilities. They'll milk them as long as possible.

Other countries have taken a very different approach. So, in the book, I spent a lot of time in Seoul and in Tokyo and Stockholm and other parts of the world, where they are amazed at the American situation. I've never been embarrassed to be an American other than on these trips.

The mayor of Stockholm took me aside and said, "Is there anything we can do to help you? Why are you so stuck? Why is it so backwards?" And in Seoul, they feel that coming to America is like taking a rural vacation because it's so peaceful here. We're hardly connected at all.

**The internet's not gonna bother you.**

Yeah, you'd have no interruption, nothing happening.

**You do have a line if you go to Seoul and you do an amazing sort of VR experience. And you're talking about how wired Seoul is and you met many 20-somethings who did not distinguish between online life and real life. For them, these are simply layers of life as a whole. That doesn't sound like a good thing.**

**You mentioned the Facebook story, the program yesterday, it'll be several Facebook stories ago. But this is another data breach. They were releasing data they said they weren't releasing. We're in a world now where we're really having a reckoning about what we want out of technology and the internet.**

**You're taking it as a given that if we have more internet access, faster internet access, it's inevitably gonna be a good thing. Is there anything that gives you pause about, it wouldn't be the worst thing to slow stuff down right now?**

All humans want to do is connect. Right? Now, terrorists do use telephones. There are negatives, there are burdens that come with this.

**They use YouTube and Twitter.**

But the benefit to human lives, to being able to connect to more people in a way that allows them to lead a thriving life. Really, the electricity parallel, I think, speaks to people. Can you imagine a world without adequate electricity? If you just had a light bulb in your house, you could say, "I've got electricity." But you wouldn't have refrigeration, you wouldn't have the notion of ...

**And you may choose to go camping or go to your rural cabin, but it's a choice you make.**

But it's a choice.

**Right.**

Exactly. And we don't even have that choice in America right now.

**What does it mean that Google, which has both the ability, capacity, and the self-interest to have fiber and high-speed internet access, said they were gonna do this, spent a bunch of money on it, and then after a couple years said, "This is too much work and it's too complicated, we're not gonna do it."**

Look, they're like Verizon, which did exactly the same thing, backed off from installing fiber. Their shareholders are impatient with the long-term capital needs involved in making sure that there's great last-mile access in America. Google had an interest in disrupting this story, making it more obvious to Americans that we've got a terrible problem with connectivity. But their shareholders were not interested in the relatively low returns involved in building infrastructure.

Nobody builds a bridge assuming that they're gonna make 20 percent a year on that investment. These are long-term investments that pay off at a rate of, let's say, 5 or 6 percent until the sun explodes. They're great investments, but you would have to have a different profile as a company to be interested in that. And that's not Google's business.

**It's an extraordinary thought, right? Because Google is a money machine, right? They have an unchallenged dominance over internet advertising, even better than Facebook. If anyone could afford to do this, they could. And if anyone could tell Wall Street, "We are gonna do this and we're gonna do it for 20 years and go pounce in."**

No private company has that freedom with Wall Street to say, "For this entire sector, we're gonna do something that looks to *you* as if it's unprofitable." For America and for long-term policy, it's anything but unprofitable. We are actually at a huge deficit because we're not making this investment. And it *will* pay off, but in a different profile than these private companies are patient for.

**Let's talk a bit about what it would cost to bring fiber everywhere, and also how you actually do it. You go to Austin at one point and you watch them, they're literally digging a ditch to lay cabling.**

I want to be the John McFee of fiber.

**It's great. You're going for pages and pages and you're hanging out with these guys and I kind of wanted to watch it.**

Right.

**Good Netflix show. So you'd have to dig up ground, or you have to tunnel through, you have to ... Stuff has to be put into the ground, right? This isn't something you can solve with an app. It's just guys, men and women, with machines, digging.**

Right, 80 percent of the cost of putting in this great fiber last mile is the labor. These are great jobs, too, gotta say. And this kind of investment is one that requires political will and lowering the cost of capital, using government guarantees and loans in order to make that money available. But it's not rocket science, it's just money. And we spend money on a lot of things that would not be as beneficial as this one for the future.

I want to point out that this book is about a bunch of localities making this decision for themselves.

**Right, there are pockets. There are individual cities and towns that have gone ahead and just put their own fiber in.**

750 of them, around the country. And, by the way, mostly conservative places. This is a very deeply bipartisan issue. This is about making life better for everybody in your community. So, there are lots of places that have decided it's worth it, it's worth it just to borrow the money and have it pay off slowly.

So if this is about long-term planning and patience, which doesn't necessarily fit the profile of either any one individual company, and often any one politician who has to show an immediate payoff, but, like FDR, who was making very long-term investments for the country, this one is absolutely worth it.

**What would the bill be if we wanted to go ahead and get fiber everywhere?**

The overall bill? I'm not sure. I'm not sure. And that is not what I'm intending to do.

**Hundreds of billions?**

Oh, no. Not... Hundreds of billions? I don't *think* so. But what we're seeing is that for localities, it is a tiny increment of what they end up spending on their overall bill.

**So you lay out convincingly the many reasons we're not getting this.**

Yeah.

**And a lot of them are economic, because we have this unfettered capitalism, right?**

Right.

**I'm assuming you're gonna say that we need the equivalent of a jobs bill. Right? Or a WPA project, or some sort of federal legislation sort of spurring this.**

What's gonna happen here is the same story with electricity also. We start with localities and co-ops and agriculture, and then they gradually shame the federal government into doing something about it. And that could be an infrastructure bill, the kind of thing that the Trump administration's talking about right now, could be a giant federal effort to say we're gonna lower the cost of capital for building these last-mile networks across the country.

**We're gonna incent people to build this stuff with tax breaks or however else we're gonna do it.**

Right. And there are all kinds of ways to do it.

**It'll be a job creation bill that people have to follow the truck to put the thing in.**

Exactly. There are all kinds of way to do it. It's not even that complicated. It just requires political will, at this point. The problem for the country is that we do have something that feels *like* internet access to people around the country being sold to them at these very high prices by cable companies. Exactly the same thing, the electricity guys back in the '30s, attacked any effort to say we need a public option or we need some oversight by saying this is Bolshevik and communist and Soviet. Those same arguments are coming out right now about the role of municipal efforts to something about the fiber story.

**Whenever I see Verizon or AT&T executives talk, they are exclusively focused on the future of 5G networks.**

Yes, exactly.

**Which seem to involve beaming the internet very quickly to my phone.**

Yeah.

**And, again, I'm sort of not convinced about why that's a good thing, but they're very excited about it. Doesn't that solve this problem?**

Well, glad you asked that, Peter, because, in fact, the book is about the complementary character of these great wired, fixed networks, fiber, and advanced wireless. The 5G connections that Verizon's talking about, AT&T are too, will create tsunamis of data. And in order for that data to go anywhere there's got to be a fiber optic connection quite close by. So, those 5G worlds will only emerge in urban areas and will only emerge where there's fiber. So the two stories absolutely go together.

**You can't have real 5G without real fiber.**

Exactly. It's like saying, "All I need is an airplane. I don't need an airport." The airplane has to land somewhere.

**So why isn't Hans Vestberg, CEO of Verizon, saying, "Well here's our plan to get fiber everywhere so we can have this 5G"?**

Actually, they are building their own *private* fiber only connecting to their 5G plans in places like, say, Boston. They're doing that. There's a risk here that all we're going to do is recapitulate the cable fixed monopoly for access. And they're going to have so much power in 5G that no competition will emerge. And that's a terrible story for America.

Look, the role of regulation is to unleash the private markets to have a playing field to play on. We don't have that infrastructure in place right now. And we keep building these oligopolies that can charge us whatever they want for very small amounts of service. And that's a risk with 5G as well.

**So we talked about Google and their efforts just to do this and then they backed off. You would think, even if they're not going to spend the billions of dollars, that the Googles and Facebooks and Netflixes would be out there sort of agitating for this.**

You'd think. These guys don't want to have people talking about ... they don't want to say, "Look at that monopoly over there." Because they're monopolies in their own playing fields. And so that's why they're not active here. They're big enough ...

**They also don't complain about net neutrality, because ... and Reed Hastings said this onstage to me a couple years ago at the Code Conference. Because Netflix had been a big net neutrality proponent, and eventually said, "We're big enough now. It's not our fight."**

Right. This is all about power and leverage. And Comcast needs Netflix as much as Netflix needs Comcast. So they're big enough that they can make a deal.

**They're in the club.**

They're in the club and they've pulled up the ladder behind them. America is a scrappy, entrepreneurial place. There are many *other* companies that could emerge, that would be given a playing field if we got this right.

**There was something in my Twitter feed in the last week or so. It was actually a chart, we published it at Recode, saying that broadband's fees have increased X percent in the last year. And a lot of the commentary was, "Ah, see?" This was supposed to go away post-net neutrality. But look, things are getting better. And everyone told us that the loss of net neutrality was going to lead to these terrible conditions. They haven't materialized. Are we waiting for that shoe to drop, or are we misunderstanding the argument?**

There's a lot of bafflement and confusion in the telecommunications policy area. Net neutrality itself is just a worry about the power of one of these companies to slow traffic. We haven't done anything about that power, and we haven't actually done anything to cramp their business incentives, not to upgrade their networks and not to compete.

All the book is talking about is the requirement of basic neutral access. Like clean water, like energy markets. That's the way we *should* be treating telecommunications.

The data we have on all of this, by the way, in the halls of the FCC, is decidedly third-rate. So when somebody says, "Well, speeds are getting better," that's likely based on data self-reported by the cable companies themselves. And is not very good as a basis for policy.

**"I give myself an A on my report card."**

Exactly. And you just saw Microsoft coming up with a big report about two weeks ago, saying that in fact 162 million Americans don't have ...

**That was the piece I was thinking of.**

Yeah. It's a very powerful piece of research. They don't have adequate internet access today. And you're right that what adequate internet access is is a matter of definition by the FCC. And the FCC is using a really weird, very low definition and cramped, saying that uploads don't have to be at the same rate as downloads. So they say 25 megabits per second down, 3 megabits per second up. In the eyes of someone from China, South Korea, Japan, Singapore, Hong Kong, that's a ridiculous definition. That's like putting someone on the bike path when the rest of the country is on a major eight-lane highway. That's a very small amount of data at a very low speed.

**When we talked four years ago, and it was after this net neutrality decision, court challenged by Verizon, and then you said, "Well, this can all be fixed. The FCC can basically decide to regulate internet access like it does telco."**

Mm-hmm.

And I said, “Really? You make it sound like it’s really easy; you just sort of sign something.” You said, “Yeah.” And sure enough, they did.

They did.

So for policy stuff, this stuff can move back and forth fairly easily, right? I mean, the flip side is that they just pulled the plug on that with the Trump administration, so we can go back and forth.

To get fiber to homes, right, that’s not just a signing a document, right? That’s real political will and capital and actual financial capital. It seems like an enormous project for a country that really is struggling to do lots of basic things.

More than four million Americans wrote in about net neutrality back in the days of those battles, in 2014 and 2015. And three-quarters of Americans, again, *really* think this is an important issue. And for people who can’t get access at all, it’s like not being able to breathe. It’s a huge problem. This is one of those basic issues that is akin to what we’re doing on defense or whether our water is clean or our air is clean. This is fundamental to how the country operates. The reason there’s so much ...

**It seems like the audience for this podcast would agree with you. And it’s hard for me to imagine a broader audience that has real problems getting food and shelter, or they have all sorts of political misinformation and they believe the Russians are coming to Florida. Whatever it is. It’s hard to imagine this really becoming a national issue.**

You know, those other problems are on the same level, I would say. We are heading towards a reckoning. How do we help people lead thriving lives in America? What’s happened to our basic sense of, you need a good education, you need good healthcare, you need a utility communication service. *All* of those things do need to be fixed. This one is fundamental to many of the other policy issues we care about.

If you care about climate change, if you care about education or health, those require a fantastic communications network so that people get access to those services. The reason there’s been such a kerfuffle over net neutrality is that what that fight is *really* about is how we think about telecommunications. Is it basic to human life, or a luxury? And the reason that Comcast and the other guys are fighting against these buzzwords — net neutrality — is because what they really want to avoid is being re-labeled as a utility service, something that’s subject to government oversight.

We’ve missed the boat on that right now. We can always turn the boat around, and we seem to be heading there as a country. There’s a kind of progressive revival going on in the cities around the country where people actually see how services are delivered, education, health, communications. They really get involved. And where a mayor cares about all of his or her citizens ... The capacity to care about something like fiber carries



with it the capacity to care about education, workforce development, health, and everything else.

And this book explores that evolution. This is just part of a major story for the country, this day of reckoning that's coming I think in the 2020 election. Where people say, we actually care about everyone as a country. And it's important that we put our money where our American values are.

**You traveled around the world to go see the future of fiber or what fiber looks like now. If I don't want to cross the Pacific, there are cities in America that have done this. What's sort of a good working lab for me to go visit if I want to see the benefit of doing this?**

I think Chattanooga is a pretty terrific story.

**Tennessee.**

In Tennessee. And it's a dirty old mill town from the '60s and '70s that redid itself in a whole series of actions. And one of them has been to ensure fiber access. What you see there is many new businesses showing up. You also, though, see a city that is now turning ...

**They paid for it themselves?**

Yeah. Well, they had some grant money for Smart Grid, so you can measure energy use using fiber. And that money was plowed into the fiber network. But it long ago paid for itself. And now the electricity rates are going down for the people in Chattanooga, because they've made so much money from fiber.

But you also see a place, traditionally deeply segregated, a lot of poverty, turning towards workforce development. Turning towards increasing the number of high school graduates who are ready for the great jobs that are showing up. So in small, Chattanooga is the story of what America could be.

**So spell out, why does getting fiber to Chattanooga improve high school graduation rates?**

It's more about the mindset of leaders in Chattanooga ... business leaders, civic leaders, the mayor, the whole populace.

**We can accomplish this. We can do more.**

We can do this *and* we care about what happens to our high school graduates and what their opportunities are. And that's of a piece with a long series of developments in Chattanooga. It wasn't like fiber arrived alone as a part of a narrative. It's part of a

greater narrative for Chattanooga. But what I point to in the book is that it's also part of supporting the entire populace, not just a few people.

**That's funny, because when I read your book, it's very high-protein, right? It's very dense, a lot of information. It's great. It's easy to read. It's also quite dour, I think. I mean, it provides very sort of stark arguments against why any of this is going to happen. I talk to you and you seem much more optimistic. Maybe I'm missing the optimism in the book. In the same way, you know, you watch *The Wire*, you're like, "Oh, endemic crime and corruption is part of urban America. We can't stop it." But you think this can be fixed?**

Look, I'm resilient and cheerful, like all other Americans. We're always like this. We built the Hoover Dam, you know? We built the Tennessee Valley Authority. We built the national highway system. And we led, as a country, certainly from the end of the Second World War until, let's say, the '70s. We can do it again.

The other thing I discovered on these trips around the world is that the grit and ingenuity and scrappiness and kind of playfulness of Americans is not necessarily echoed in those other places. They may have great networks, but they don't have our entrepreneurial sense. And what I dream of is marrying that great American spirit of inventing new things with an actual network that will allow us to build those new industries. We don't have that right now.

**Susan Crawford, you should run for office.**

No. I want other people to run for office.

**I want to leave on that optimistic note. I knew you would be great as a podcast guest. I was trying to get you on for years.**

Oh.

**Now you have a book so you have a reason to come. So thank you so much.**

Thank you very much.

ONE HUNDRED SIXTEENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**

COMMITTEE ON ENERGY AND COMMERCE

2125 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-6115

Majority (202) 225-2927  
Minority (202) 225-3641

February 4, 2019

The Honorable Ajit Pai  
Chairman  
Federal Communications Commission  
445 12th Street SW  
Washington, DC 20554

Dear Chairman Pai:

With the start of 116th Congress, the Committee will reassume its traditional role of oversight to ensure that the agencies under its jurisdiction are acting in the best interest of the public and consistent with their legislative authority. Given your role as Chairman of the Federal Communications Commission (FCC), it is your responsibility to make certain the Commission performs its duties according to those standards.

When you were nominated for the chairmanship almost two years ago, we shared some thoughts on how to achieve success at managing the FCC. While much has changed during that time, our advice to you remains the same—to be responsive to members of Congress on both sides of the aisle; to drive towards consensus on all major FCC actions; and to respect the invaluable expertise of the career staff, which gives the FCC the credibility it needs to carry out its regulatory mission. Unfortunately, this has not happened.

Not only have you have failed on numerous occasions to provide Democratic members of this Committee with responses to their inquiries,<sup>1</sup> you have also repeatedly denied or delayed responding to legitimate information requests from the public about agency operations.<sup>2</sup> These

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<sup>1</sup> Letter from Rep. Frank Pallone, Jr., et. al. to Ajit Pai, Chairman, Federal Communications Commission (May 22, 2018).

<sup>2</sup> See, e.g., Ars Technica, *FCC Makes Net Neutrality Complaints Public, But Too Late to Stop Repeal* (Sept. 5, 2017) ([www.arstechnica.com/tech-policy/2017/09/fcc-makes-net-neutrality-complaints-public-but-too-late-to-stop-repeal/](http://www.arstechnica.com/tech-policy/2017/09/fcc-makes-net-neutrality-complaints-public-but-too-late-to-stop-repeal/)); Muckrock, *The FCC Backs Down, Releases Emails Related to Ajit Pai's "Harlem Shake" Video* (Dec. 17, 2018) ([www.muckrock.com/news/archives/2018/dec/17/fcc-harlem-shake-emails/](http://www.muckrock.com/news/archives/2018/dec/17/fcc-harlem-shake-emails/)); Engadget, *NYT*

The Honorable Ajit Pai  
February 4, 2019  
Page 2

actions have denied the public of a full and fair understanding of how the FCC under your leadership has arrived at public policy decisions that impact Americans every day in communities across the country.

Under your leadership, the FCC has failed repeatedly to act in the public interest and placed the interest of corporations over consumers. The FCC should be working to advance the goals of public safety, consumer protection, affordable access, and connectivity across the United States. To that end, it is incumbent upon the Committee's leadership and its members to oversee the activities of the FCC.

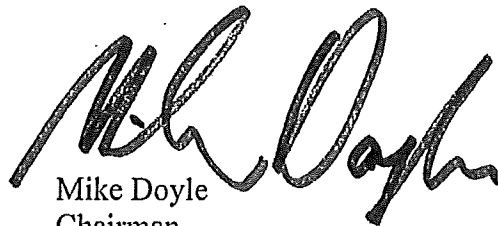
Consistent with similar requests to your predecessors, we ask that the FCC update the Committee with information about, among other things, the FCC's current workload, the work of its bureaus and field offices, and the FCC's interactions with the public through its handling of consumer complaints and Freedom of Information Act requests. We have attached a series of questions that encompass those issues and respectfully request that you provide a complete written response no later than March 4, 2019.

We appreciate your assistance in this matter. If you have any questions regarding this inquiry, please do not hesitate to contact Gerald Leverich of the Committee staff at (202) 225-2927.

Sincerely,



Frank Pallone, Jr.  
Chairman



Mike Doyle  
Chairman  
Subcommittee on Communications  
and Technology

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*Lawsuit Accuses FCC of Withholding Evidence of Russian Meddling* (Sept. 21, 2018)  
([www.engadget.com/2018/09/21/nyt-sues-fcc-over-foia-requests/](http://www.engadget.com/2018/09/21/nyt-sues-fcc-over-foia-requests/)).