

# **NORTH METRO TELECOMMUNICATIONS COMMISSION MEETING**

April 19, 2017  
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. 1-12**
  - 2.1. Approval of the minutes of the regular meeting, February 15, 2017
  - 2.2.** Approval of the February and March financial reports and bill lists
3. CITIZENS TO BE HEARD
4. NORTH METRO TV REPORT **pp. 13--24**
  - 4.1. Monthly update
5. REPORT OF EXECUTIVE COMMITTEE **pp. 25-36**
  - 5.1. Carousel Unit and Makito X Recommendation
  - 5.2. New NMTV Staff
  - 5.3. CenturyLink Quarterly Meeting
  - 5.4. LMC Liability Coverage Waiver
6. REPORT OF OPERATIONS COMMITTEE **pp. 37-38**
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. 39-43**
14. ADJOURN

# **NORTH METRO TELECOMMUNICATIONS COMMISSION**

## **UNAPPROVED MINUTES**

**Commission Meeting – February 15, 2017**

### **CALL TO ORDER**

Chair M. Percy called the regular meeting of the North Metro Telecommunications Commission to order at 6:00 p.m. at the Spring Lake Park city offices.

### **ROLL CALL**

#### **Directors Present:**

Dick Swanson; Blaine, Mike Murphy; Lexington, Matt Percy; Circle Pines, Steve King; Centerville, Al Parranto; Ham Lake, Melissa Maher; Lino Lakes, Cindy Hansen; Spring Lake Park

#### **Directors Absent:**

#### **Others Present:**

Heidi Arnson; Executive Director, Rose Valez; Admin. Asst., Mike Bradley; Legal Counsel

#### **Comcast Rep:**

#### **CenturyLink Rep:**

### **CONSENT AGENDA**

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

The December 21, 2016 minutes were approved as presented. **Motion for approval made by C. Hansen. Second, A. Parranto. Motion passed.**

The December and January bill lists and financial reports were approved as presented. **Motion for approval made by C. Hansen. Second, D. Swanson. Motion passed.**

### **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 January and February. Topics included:

- The North Metro TV HD upgrade is done. While there are still a few punch-list items remaining, the two studios, master control, and the production truck are all fully operational. Staff is now concentrating on completing a couple of peripheral projects related to the upgrade, namely getting the graphics wrap done on the new truck and acquiring new sets.
- North Metro TV is in the process of filling two open positions. The first has been re-designated from an Outreach Coordinator to a Municipal Producer. This person will be responsible for producing content for the city channels. He or she will work closely with the News Team and the Special Projects Coordinator to make sure all of the programming needs of the Cities are met. The second opening is for a Video Engineer. The job description is being retooled to include HD technology and maintenance, system planning, and software and networking skills. Both positions should be filled by the end of March.
- NMTV staff have been scheduling and attending HD upgrade meetings with several Cities, including Blaine, Lino Lakes, Ham Lake and Circle Pines. Work is being done with Spring Lake Park's HD signal to find a solution for HD transport from City Halls to the North Metro TV head-end. Staff continues with video projects for the Cities as well, including the snow plowing PSA for Circle Pines, a history project and the Mayor Wilharbor video for Centerville, a series of recruitment videos for the Lino Lakes Public Safety Fire Division, the Ham Lake Snowbowl preview, and a video for Blaine called Economic Growth and the Blaine Job Market.
- Work is also being done with the schools. Special Projects Coordinator, T.J. Tronson is gearing up for his annual Arrive Alive program. He is working with Centennial High School and the Blaine Police Department on the project. He also produced a couple of videos that are going to be used by the Anoka Hennepin School District's professional development program next year regarding the subject of gender identity. Also Studio Manager, Eric Houston, has been teaching members of the Blaine High School Business Professionals of America how to operate Studio A for a school project.

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

D. Swanson reported on the following items:

- Staff requested the Commission approve a change order request that would pay for graphics on the new truck out of the HD bond. Graphics for the truck were not included in the original equipment costs. A little over \$18,000 remains of the bond money. The full truck wrap is quoted at \$5,119.51. The Operations Committee recommended that the Commission approve doing so.

**MOTION:** To approve the change order requesting that the truck graphics be paid for with the HD bond funds. **Motion for approval made by: D. Swanson. Second: S. King. Motion approved.**

- Upgrading the Studio A sets was discussed. The current sets are over 10 years old and in disrepair. With HD technology the flaws are apparent. NMTV staff have been researching various set models and are close to a final design. It was requested that the Commission approve utilizing the reserve fund originally intended for the truck upgrade to pay for the sets. The truck was replaced as part of the HD upgrade utilizing bond funds, making use of the reserved funds unnecessary. The Operations Committee recommended that the Commission approve doing so.

**MOTION:** To approve purchasing new sets for Studio A. **Motion for approval made by: D. Swanson. Second: M. Maher. Motion approved.**

**MOTION:** To modify the 2017 NMTC budget, to finance the set purchase with the truck reserve fund.. **Motion for approval made by: D. Swanson. Second: C. Hansen. Motion approved.**

- The materials related to the 2017 disbursement of franchise fees collected in 2016 were reviewed. Both the number of cable subscribers and the total amount of franchise fees collected increased. The new percentages of individual City income related to total Member City income were noted.

**MOTION:** To approve disbursement of the 2016 franchise fees, retained by the Member Cities, as presented in the disbursement materials. **Motion for approval made by: D. Swanson. Second: C. Hansen. Motion approved.**

- Purchasing Carousel units for each Cities' government channel was discussed. The units would generate graphics and play videos on the government channels in HD. They would be located in the NMTV head-end making staff updates to data more timely and efficient. This would relieve City staff from the responsibility of creating content for the City channels. Cities will still retain control over all content on City channels. Franchise fees collected in 2016 were higher than estimated. Some of those funds will be used to pay for the devices.

**MOTION:** To approve the purchase of Carousel units for the government channels, utilizing franchise fees collected in 2016. **Motion for approval made by: D. Swanson. Second: M. Murphy. Motion approved.**

- CenturyLink has closed their kiosk in Northtown Mall. Staff confirmed that CenturyLink does not have a customer service presence in the North Metro franchise area. The Committee asked that staff continue to request an explanation from CenturyLink. H. Arnson stated that the upcoming quarterly meeting with CenturyLink would be a good opportunity to ask questions.

- Recommendations were made for members of the 2017 Executive Committee. Matt Percy, Dick Swanson, Cindy Hansen, and Mike Murphy indicated a desire to serve on the committee. No other members of the Commission indicated interest in being on the Committee. It was recommended that Matt Percy serve as Chair, Dick Swanson serve as Vice Chair, Cindy Hansen serve as Treasurer, and Mike Murphy serve as Secretary.

**MOTION:** To approve the Executive Committee as recommended. **Motion for approval made by: D. Swanson. Second: S. King. Motion approved.**

- The group discussed moving to a quarterly meeting schedule. It was felt that the current monthly schedule was working. Meetings can be cancelled if there is nothing to consider.

#### **REPORT OF LEGAL COUNSEL**

M. Bradley reported on the following items:

- A legislative alert was issued by the League of MN Cities regarding a proposed change to the definition of public rights of way, in a bill that was written by Verizon and supported by AT&T. Cities should be aware of this bill. The League wrote an article and provided fact sheets regarding the issues. Small cell and DAS issues are going to become more and more prevalent as we move forward with wireless technology. When 5G technology becomes available companies are going to want to place more and more antennas for improved coverage. Cities want to be sure antennas are placed in a safe and thoughtful way. This proposed legislation would re-define City owned poles and buildings as part of the right of way, restricting Cities' ability to receive compensation. M. Bradley would be available to meet with the Commission or City staff to review the issues.
- There's been a change to the FCC leadership. The 34th FCC Chairman is Ajit Pai. What direction the FCC is going to take is still an unknown.
- There is an update to closed-captioning. There is a rule that requires the Commission to file electronically with the FCC, a certification that the Commission is complying with the FCC's closed-captioning rules. Since the Commission is exempt from closed-captioning the filing should be fairly straight-forward. The Alliance for Community Media has petitioned the FCC for a waiver of the requirement that local producers file as well. This could also include local governments. In addition to the FCC closed-captioning requirements, there are also some ADA rules that are administered by the Department of Justice. It is important that all access programmers, like the Commission, go through the steps necessary to determine whether or not they are in compliance with the ADA rules. There is a large number of franchising authorities that want to get together and cost share in doing that. That is something we will look at doing over the course of the next year.

- Some articles have recently come out related to Prism TV and CenturyLink. CenturyLink was quoted as saying it would be moving away from Prism TV and moving toward Over the Top type model for TV. M. Bradley spoke with CenturyLink and was assured that they do not plan to move away from Prism TV in the Twin Cities market. Too much has been invested in the service.

#### **REPORT OF COMCAST**

No report was presented.

- Staff noted that Comcast is increasing its Broadcast TV and Regional Sports fees they charge subscribers.

#### **REPORT OF CENTURYLINK**

No report was presented.

#### **NEW BUSINESS**

No new business was presented.

#### **OLD BUSINESS**

S. King inquired as to whether community channels are on the channel guide. Staff responded that the HD channels will be.

#### **REPORT OF DIRECTORS**

#### **ADJOURN**

The meeting was adjourned at 6:43 p.m. **The motion to adjourn was made by A. Parranto. Second, S. King. Motion approved.**

The next meeting of the NMTC will be held on **Wednesday, March 15, 2017 at 6:00 p.m.** at the city offices of Spring Lake Park.

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Mike Murphy; Secretary, NMTC

**NORTH METRO TELECOMMUNICATION  
BILL LIST**

MARCH 2017

<b>Date</b>	<b>Check #</b>	<b>Payee</b>	<b>Amount</b>
MARCH	COMBINED	PAYROLL	47,125.38
MARCH	COMBINED	IRS/US PAYABLE	16,700.51
MARCH	COMBINED	MN REVENUE PAYABLE	2,695.95
MARCH	COMBINED	PERA PAYABLE	8,966.42
MARCH	COMBINED	PEACHTREE	51.20
MARCH	COMBINED	DISCOVERY BENEFITS	1,355.25
13044	3/2/17	Aid Electric Corporation	355.04
13045	3/2/17	Corporate Mechanical	420.00
13046	3/2/17	Richard D. Larson	582.00
13047	3/7/17	B Harris, Inc.	750.00
13048	3/7/17	Alpha Video & Audio, Inc	1,369.25
13049	3/7/17	Grass Hopper Lawn & Snow	650.00
13050	3/8/17	Benjamin Hayle	15.28
13051	3/9/17	Jimmy Lilledahl	125.00
13052	3/9/17	Dan Ficken	60.00
13053	3/17/17	Alpha Video & Audio, Inc	555.00
13054	3/26/17	Eric Houston	45.20
13055	3/26/17	Anoka County Property Tax	388.83
13056	3/28/17	Danika Peterson	118.01
13057	3/28/17	Print Central	211.32
13058	3/28/17	Grass Valley USA, LLC	3,501.00
13059	3/29/17	Terry Tronson	159.22
EFILE	3/1/17	Authorize.Net	26.79
EFILE	3/16/17	Chase Visa Card Services	4,799.98
EFILE	3/1/17	Virtual Merchant Credit Card	52.70
EPAY-01	3/7/17	Republic Services	109.17
EPAY-02	3/7/17	CenterPoint Energy	266.09
EPAY-02	3/7/17	AT&T Wireless	380.93
EPAY-03	3/7/17	Assurant Employee Benefits	568.66
EPAY-05	3/8/17	VERIZON WIRELESS	360.41
EPAY-06	3/8/17	Fleet One LLC	116.71
EPAY-07	3/8/17	Star Tribune	369.72
EPAY-08	3/8/17	U.S. Bank Card Service	429.00
EPAY-09	3/17/17	City of Blaine-utilities	55.57
EPAY-10	3/17/17	Connexus Energy	1,946.25
EPAY-11	3/17/17	POPP TELECOM	773.70
EPAY-12	3/17/17	HealthPartners	9,272.08
EPAY-13	3/21/17	Comcast	275.92
EPAY-14	3/21/17	T-Mobile	103.08
FEB SALES TAX	3/12/17	MN Dept. of Revenue	33.00

**106,139.62**

**NORTH METRO TELECOMMUNICATION  
BILL LIST**

FEBRUARY 2017

<b>Date</b>	<b>Check #</b>	<b>Payee</b>	<b>Amount</b>
FEBRUARY	COMBINED	PAYROLL	43,827.08
FEBRUARY	COMBINED	IRS/US PAYABLE	17,879.47
FEBRUARY	COMBINED	MN REVENUE PAYABLE	3,012.96
FEBRUARY	COMBINED	PERA PAYABLE	6,584.98
FEBRUARY	COMBINED	PEACHTREE	35.20
FEBRUARY	COMBINED	DISCOVERY BENEFITS	912.50
13023	2/1/17	Heights Theater	500.00
13024	2/7/17	Richard D. Larson	300.00
13025	2/9/17	Floyd Security / SRSI	135.97
13026	2/9/17	Grass Valley USA, LLC	3,501.00
13027	2/13/17	DVS RENEWAL	4,127.88
13028	2/15/17	City of Blaine	188,451.45
13029	2/15/17	City of Centerville	11,874.28
13030	2/15/17	City of Circle Pines	16,137.55
13031	2/15/17	City of Ham Lake	47,761.56
13032	2/15/17	City of Lexington	6,010.14
13033	2/15/17	City of Lino Lakes	55,650.71
13034	2/15/17	City of Spring Lake Park	19,114.27
13035	2/15/17	Eric Houston	197.47
13036	2/15/17	Rick Larson	159.13
13037	2/15/17	Corporate Mechanical	624.47
13038	2/21/17	Kenton Kipp	407.06
13039	2/21/17	B Harris, Inc.	483.75
13040	2/21/17	Bradley Law, LLC	2,025.00
13041	2/21/17	Region 5AA	800.00
13042	2/22/17	DVS RENEWAL	261.00
13043	2/28/17	Matthew Waldron	232.40
EFILE	2/1/17	Authorize.Net	25.60
EFILE	2/16/17	Chase Visa Card Services	1,998.97
EFILE	2/1/17	Virtual Merchant Credit Card	46.50
EPAY-01	2/7/17	Republic Services	109.23
EPAY-02	2/7/17	CenterPoint Energy	457.57
EPAY-03	2/7/17	Assurant Employee Benefits	811.34
EPAY-04	2/7/17	AT&T Wireless	380.93
EPAY-05	2/7/17	VERIZON WIRELESS	355.08
EPAY-06	2/7/17	Fleet One LLC	106.35
EPAY-07	2/7/17	U.S. Bank Card Service	988.29
EPAY-08	2/10/17	Connexus Energy	2,216.84
EPAY-09	2/15/17	POPP TELECOM	774.86
EPAY-10	2/15/17	City of Blaine-utilities	56.75
EPAY-11	2/16/17	HealthPartners	9,272.08
EPAY-12	2/21/17	Comcast	275.92
EPAY-13	2/21/17	T-Mobile	103.08
JAN SALES TAX	2/14/17	MN Dept. of Revenue	15.00

**449,001.67**

# North Metro Telecommunications Commission

## Balance Sheet

March 31, 2017

### ASSETS

#### Current Assets

Cash - Checking Account	\$	2,223,906.99
Petty Cash		150.00
A/R - NMTC		188,207.18
Prepaid Insurance - NMTC		13,314.26

Total Current Assets 2,425,578.43

#### Property and Equipment

Office Equipment - NMTC	2,061,716.78
Accum Deprec - NMTC	(2,339,970.53)
Accumulated Amortization	(107,700.15)
Bond Setup Fee	92,700.15
Bond Setup Fee 2012	15,000.00
Bond Equipment 2016	200,000.00
Building-Polk/125	1,503,204.17
Land-Polk/125	225,700.00

Total Property and Equipment 1,650,650.42

#### Other Assets

Deferred Out Related/Pension	72,490.00
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Total Other Assets 72,490.00

Total Assets \$ 4,148,718.85

### LIABILITIES AND CAPITAL

#### Current Liabilities

A/P - NMTC	\$	5,355.00
Accrued Vacation		196,494.25
Accrued Wages		10,459.20
Franchise Fee App		883,889.23
Deferred In Related/Pension		54,575.00

Total Current Liabilities 1,150,772.68

#### Long-Term Liabilities

Net Pension Liability	523,433.00
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Total Long-Term Liabilities 523,433.00

Total Liabilities 1,674,205.68

#### Capital

Net Equity	344,424.30
Net Equity - Media Ctr	(206,243.34)
Net Equity - NMTC	2,517,656.37
Net Income	(181,324.16)

Total Capital 2,474,513.17

Total Liabilities & Capital \$ 4,148,718.85

# North Metro Telecommunications Comm

## Cash Receipts Journal

For the Period From Mar 1, 2017 to Mar 31, 2017

Date	Transaction Ref	Line Description	Debit Amnt	Credit Amnt
3/14/1	REIMB-HEALTH	FAMILY COVERAGE		1,124.94
		TEST SEND		5.00
		Miscellaneous receipts	1,129.94	
3/14/1	COMMERCIAL PROD	COMMERCIAL PRODUCTION-TJ		200.00
		Miscellaneous receipts	200.00	
3/14/1	CAMERA LENS	CAMERA LENS		331.00
		Miscellaneous receipts	331.00	
3/14/1	TAPE DUBS-CHECKS	TAPE DUBS-CHECKS		260.00
		Miscellaneous receipts	260.00	
3/26/1	MAR CC SALES-AUTH	MARCH CREDIT CARD		40.00
		SALES-AUTHORIZE.NET		
		MARCH CREDIT CARD	1.16	
		SALES-AUTHORIZE.NET		
		Credit Card Sales	38.84	
3/27/1	MAR CC SALES-VM	CREDIT CARD SALES - VIRTUAL		250.00
		MERCHANT		
		Credit Card Sales	250.00	
3/28/1	MARCH PAYPAL	MARCH PAYPAL		19.12
		PAYPAL	19.12	
3/29/1	INTEREST	INTEREST-COMMISSION CHECKING		827.41
		INTEREST - COMMISSION	827.41	
			<b>3,057.47</b>	<b>3,057.47</b>

# North Metro Telecommunications Comm

## Check Register

For the Period From Mar 1, 2017 to Mar 31, 2017

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

Check #	Date	Payee	Amount
EFILE	3/1/17	Discovery Benefits	20.25
PEACH	3/1/17	Peachtree/Sage Software	16.00
EFILE	3/1/17	MN Dept. of Revenue	872.35
EFILE	3/1/17	Public Employees Retirement	2,886.27
EFILE	3/1/17	IRS/US BANK	5,217.19
EFILE	3/1/17	Authorize.Net	26.79
EFILE	3/1/17	Virtual Merchant Credit Card	52.70
13045	3/2/17	Corporate Mechanical	420.00
13046	3/2/17	Richard D. Larson	582.00
13044	3/2/17	Aid Electric Corporation	355.04
EPAY-02	3/7/17	CenterPoint Energy	266.09
EPAY-01	3/7/17	Republic Services	109.17
EPAY-03	3/7/17	Assurant Employee Benefits	568.66
EPAY-02	3/7/17	AT&T Wireless	380.93
13047	3/7/17	B Harris, Inc.	750.00
13048	3/7/17	Alpha Video & Audio, Inc	1,369.25
13049	3/7/17	Grass Hopper Lawn & Snow	650.00
EPAY-06	3/8/17	Fleet One LLC	116.71
EPAY-05	3/8/17	VERIZON WIRELESS	360.41
13050	3/8/17	Benjamin Hayle	15.28
EPAY-07	3/8/17	Star Tribune	369.72
EPAY-08	3/8/17	U.S. Bank Card Service	429.00
13051	3/9/17	Jimmy Lilledahl	125.00
13052	3/9/17	Dan Ficken	60.00
EFILE	3/11/17	Discovery Benefits	445.00
FEB SALES TAX	3/12/17	MN Dept. of Revenue	33.00
PEACH	3/15/17	Peachtree/Sage Software	17.60
EFILE	3/15/17	MN Dept. of Revenue	872.35
EFILE	3/15/17	Public Employees Retirement	2,886.27

# North Metro Telecommunications Comm

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EFILE	3/16/17	Chase Visa Card Services	4,799.98
EPAY-09	3/17/17	City of Blaine-utilities	55.57
EPAY-10	3/17/17	Connexus Energy	1,946.25
EPAY-11	3/17/17	POPP TELECOM	773.70
EPAY-12	3/17/17	HealthPartners	9,272.08
13053	3/17/17	Alpha Video & Audio, Inc	555.00
EPAY-14	3/21/17	T-Mobile	103.08
EPAY-13	3/21/17	Comcast	275.92
EFILE	3/25/17	Discovery Benefits	445.00
13054	3/26/17	Eric Houston	45.20
13055	3/26/17	Anoka County Property Tax	388.83
13056	3/28/17	Danika Peterson	118.01
13057	3/28/17	Print Central	211.32
13058	3/28/17	Grass Valley USA, LLC	3,501.00
PEACH	3/29/17	Peachtree/Sage Software	17.60
EFILE	3/29/17	MN Dept. of Revenue	872.35
EFILE	3/29/17	Public Employees Retirement	2,886.27
EFILE	3/29/17	IRS/US BANK	5,217.19
13059	3/29/17	Terry Tronson	159.22
EFILE	3/31/17	Public Employees Retirement	307.61
EFILE	3/31/17	MN Dept. of Revenue	82.69
EFILE	3/31/17	IRS/US BANK	1,048.00
EFILE CORRECTION	3/31/17	IRS/US BANK	0.94
EFILE CORRECTION	3/31/17	MN Dept. of Revenue	-3.79
EFILE	3/31/17	Discovery Benefits	445.00
<b>Total</b>			<b>59,014.24</b>

# North Metro Telecommunications Comm

## General Journal

For the Period From Mar 1, 2017 to Mar 31, 2017

Date	Reference	Trans Description	Debit Amt	Credit Amt
3/1/17	ACCRUED VAC/COMP/SIC	ACCRUED VAC/COMP/SICK ACCRUED VAC/COMP/SICK	97,907.88	97,907.88
3/1/17	ACCRUED WAGES	ACCRUED WAGES ACCRUED WAGES	4,123.20	4,123.20
3/30/17	ACCRUED DEPRECIATION	ACCRUED DEPRECIATION ACCRUED DEPRECIATION	12,900.00	12,900.00
3/30/17	ACCRUED VAC/COMP/SI1	ACCRUED VAC/COMP/SICK ACCRUED VAC/COMP/SICK	99,204.14	99,204.14
3/30/17	ACCRUED WAGES1	ACCRUED WAGES ACCRUED WAGES	10,308.00	10,308.00
	<b>Total</b>		<b>224,443.22</b>	<b>224,443.22</b>

# North Metro TV

March 2017 Update

## Program Production

In March, a total of **70 new programs** were produced utilizing the North Metro facilities, funds, and services. This constitutes **53:00:00 hours of new programming**.

- 34 programs were produced by the public
- 16 programs were produced by NMTV staff
- 20 programs were produced by City staff



## Van Shoots

The HD truck was used for **14:00:00** hours of production.

- Boys Hockey: 5AA Final: Centennial vs. Maple Grove
- Girls Basketball: 5AAAA Final: Park Center vs. Centennial



## Workshops

Workshop	Instructor	Organization	Students
Intro to NMTV	Eric Houston	General Public	4
Bad Movie Bros Taping	Eric Houston	Video Club	3
Camera	Eric Houston	General Public	7
Editing	Eric Houston	General Public	1
Studio A	Eric Houston	General Public	7
Star Trek Lecture	Eric Houston	Video Club/General Public	17
Editing	Eric Houston	General Public	6
<b>7 Workshops</b>			<b>45 Students</b>

## Home Movie Transfers

Home movie transfers have become one of our most popular services. Residents can transfer their family videos, film, slides, and photos at North Metro TV themselves for free, or pay NMTV to do it. Most participants want to do it themselves.

Month	Hours Transferred	Tapes	Film Reels	DVDs	Photos/ Slides	Fees Paid
January	205.75	58	174	46	80	\$675
February	165.75	65	41	14	672	\$411
March	131.5	41	98	45	0	\$305
<b>TOTAL:</b>	<b>503</b>	<b>164</b>	<b>313</b>	<b>105</b>	<b>752</b>	<b>\$1,391</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, outreach, or educational.

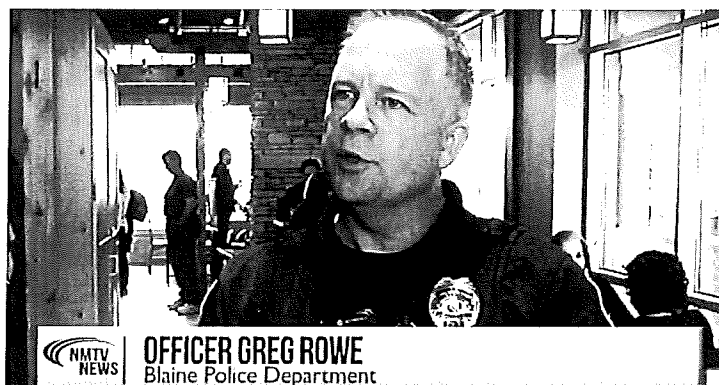
Month	Unique Individuals	Total Usage Hours
January	67	523.5
February	74	461.75
March	54	476.75
<b>TOTAL PUBLIC USAGE:</b>		<b>1,462</b>

## Production Highlights

### NMTV News Highlights

Each week Danika Peterson and Ben Hayle create a news program that highlights events, people, issues, and information important to citizens of our Member Cities. Some March highlights include the local non-profit Cars for Neighbors donating their 1,000th car, a Minnesota foodshare month feature about local food shelf Southern Anoka Community Assistance, Allina Health exercising an option to buy Mercy Hospital-Unity Campus from the North Suburban

Hospital Board, and the new Blaine Police Coffee with a Cop program. In addition to daily playbacks of North Metro TV News on the cable systems, there are over 368 local stories archived for viewers on the NMTV YouTube page. The page can be accessed through the [northmetrotv.com](http://northmetrotv.com) website.



### Meet the New Staff

The two open positions at North Metro TV have been filled. Trevor Scholl was hired as our Municipal Producer. He has a degree in Journalism from the University of Minnesota and has been working as a video producer for over three years. He interned at North Metro TV three years ago, and then continued helping out even after his internship was over. He was eventually hired on a part-time basis to assist the news team. At the same time he was working part-time for Northwest Community Television creating content for their Cities. Trevor will be responsible for creating video content for the seven City channels.

Matt Waldron was promoted from Sports Producer to Video Engineer at the end of March. Matt has been with North Metro TV for 15 years in that capacity. Over the years he has been the go-to guy for engineering the production truck and solving technical issues throughout the system. He was very involved in the NMTV HD upgrade, from planning to integration. Not only is he technically adept, he is also skilled in video production, computer animation and graphics, and networking. He has already solved several problems for Cities and has been out and about familiarizing himself with City systems. He will be assisting Cities with any HD upgrades.



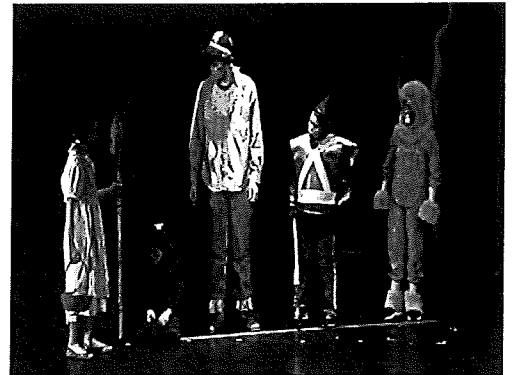
## Special Olympics

Studio Manager, Eric Houston, organized a production opportunity for members of the NMTV Video Club, to shoot footage of the Special Olympics Games in the Twin Cities. He worked with organizers of the event to obtain permission, schedules, and press credentials for NMTV producers. He then worked with Brett Wong and Dave Bauer, both of Lino Lakes, to review techniques for shooting the event. Dave and Brett spent a day shooting basketball, swimming, and weight lifting. They interviewed coaches and even an umpire. They both said it was an awesome experience and that they learned a lot about shooting events in the field. Eric will be working with Dave and Brett to edit the footage into programs.



## The Wizard of Oz

T.J Tronson wrapped up production on the Centennial Elementary production of the Wizard of Oz. He used three cameras and then edited the footage in post. We don't play concerts or plays on our channels because of copyright issues, but we know parents want to see their kids performances, so we videotape them and then make DVD copies available for parents to purchase.



## Every Movie Ever

Eric Houston has developed a new series of programs that are being produced with the help of three young men, with special needs, who visit North Metro TV weekly for work experience. Two of the gentlemen are from Blaine and one is from Ham Lake. The show purports to be an attempt to review every movie ever made, and is called Every Movie Ever. Our three volunteers edit the program and create all of the graphics. They have been very quick to acquire these skills and are able to create finished programs with minimal supervision.

## Production equipment consulting for cities and schools (30.25 hours)

### Blaine

- Met with Alpha staff at NMTV regarding Blaine system and new Carousel systems
- Met with Roark regarding same
- Called neighboring Cities for example RFPs at Roark's request
- Progress meeting with Z Systems
- Met with Roark and Alpha Video
- Bookmarked City meetings and placed On Demand

### Spring Lake Park

- Created 14 new graphics for City Channel.
- Bookmarked 2 City meetings and placed On Demand
- Extracted stuck DVD out of DVD player. Reconstruct DVD player and test for functionality
- Change settings on KiPro recorder to 422 instead of 422 LT for higher quality recordings

### Ham Lake

- Created 20 new SCALA/Carousel graphics.
- Progress meeting with Z Systems
- Reviewed Z Systems Proposal
- Updated SCALA with newly created slides
- Meet with Don and Denise to review Z Systems and ISpace proposals
- Bookmarked 5 City meetings and placed on Demand
- New Video Tech Matt Waldron visited to introduce self and familiarize himself with system
- Talked with Denise about over modulating audio and video ghosting on channel. Determined ghosting a Comcast issue and made a request for service
- Studied A/V system to learn how it operates.

### Circle Pines

- Create 3 new SCALA slides.
- Bookmarked 3 City meetings and placed On Demand
- New Video Engineer Matt Waldron went to City to familiarize himself with system.
- Met with Patrick to determine any schedule or plans for HD upgrade.

- Took broken DVD burner to shop to replace a capacitor that fried on the motherboard.
- Ordered capacitors.
- Lexington**
  - Created 7 new SCALA slides
  - Updated SCALA system with new slides
  - New Video Engineer Matt Waldron met with Bill to check in and familiarize himself with the system. Discussed current system and needs.
  - Offered to get quote to upgrade to HD. Will look at affordable options utilizing 1 camera.
- Centerville**
  - No assistance was requested.
- Lino Lakes**
  - Progress meeting with Z Systems.
  - Bookmarked 3 City meetings and placed On Demand

#### Computer/Networking consulting for cities and schools

No assistance was requested.

#### City Channel 16 Playback Stats

City	Number of Times Programs Played	Hours Programmed on Channel
Blaine	156	165:37:12
Centerville	13	32:38:10
Circle Pines	118	44:38:40
Ham Lake	47	27:29:42
Lexington	82	32:58:53
Lino Lakes	127	36:30:05
Spring Lake Park	76	74:27:44
<b>Totals:</b>	<b>619 Program Playbacks</b>	<b>414:20:26 Hours of Video Programming on Channels</b>

#### Programs Produced by the Public

Title	Producer	Runtime
Chit Chat: Lisa Jacobson, Hope 4 Youth	Sharon Carlson	00:20:05
MSRA 2016 Back to the 50's	Joachim Scholz/Laurie Sigler	00:28:07
Exploring Aviation: Flight Review	Rick Bostrom	00:27:00
How to Have a Garage Sale	Joachim Scholz/Laurie Sigler	00:18:42
Bunny Training Video	Ben Daniels	00:17:57
Every Movie Ever	Video Club	00:07:41
Bad Movie Bros (2 episodes)	Video Club	01:11:47
Exploding Reality/Psywar	Michele Kurak	01:40:05
Sloan Sez	Danika Peterson	00:29:37
A Fresh New Day	Anita Wardlaw	00:12:07
Cornerstone Church (2 episodes)	Rick Bostrom	00:47:04
Lovepower (6 episodes)	Ann Sandell	06:00:00
The Power of Love (6 episodes)	Rick Larson	03:00:00
Rice Creek Watershed District Meeting (2 episodes)	Theresa Stasica	04:15:25
Hope Church (2 episodes)	Cindy Hardy	01:23:51
Oak Park Moments (5 episodes)	David Turnidge	02:47:31
<b>34 New Programs</b>		<b>23:46:59 New Hours</b>

## Programs Produced by NMTV Staff

Title	Producer	Runtime
Anoka County Board Meeting (3/7/17)	T.J. Tronson	01:03:37
Anoka County Board Meeting (3/28/17)	T.J. Tronson	00:37:09
Centennial Elementary Presents: The Wizard of Oz	T.J. Tronson	01:28:33
Let Me Be Me	T.J. Tronson	00:02:30
Beyond the Box	T.J. Tronson	00:06:00
NMTV News (4 episodes)	Danika Peterson/Ben Hayle	01:18:58
On Tap	Ben Hayle	00:28:44
Guns vs. Hoses Public Safety Hockey Game: Lino Lakes Channel Version	Danika Peterson	00:03:27
Boys Hockey: 5AA Final: Centennial/Maple Grove	Kenton Kipp/Matt Waldron	02:10:10
Girls Basketball: 5AAAA Final: Park Center/Centennial	Kenton Kipp/Matt Waldron	01:52:48
Sports Den (2 episodes)	Kenton Kipp/Matt Waldron	00:59:00
Sports Den Winter Season Finale	Kenton Kipp/Matt Waldron	01:26:22
<b>16 New Programs</b>		<b>11:37:18 New Hours</b>

## Programs Produced by City Staff

Title	Producer	Runtime
Blaine City Council Meeting (3/2/17)	Blaine Staff	00:33:15
Blaine Planning Commission Meeting (3/14/17)	Blaine Staff	00:51:51
Blaine City Council Meeting (2/16/17)	Blaine Staff	01:17:45
Blaine Park Board Meeting (3/28/17)	Blaine Staff	01:32:00
Centerville City Council Meeting (3/8/17)	Centerville Staff	02:54:11
Centerville City Council Meeting (3/22/17)	Centerville Staff	02:10:25
Circle Pines City Council Meeting (3/14/17)	Circle Pines Staff	00:09:59
Circle Pines Utility Commission Meeting (3/15/17)	Circle Pines Staff	00:14:55
Circle Pines City Council Meeting (3/28/17)	Circle Pines Staff	00:38:03
Ham Lake City Council Meeting (3/6/17)	Ham Lake Staff	00:32:43
Ham Lake Planning Commission Meeting (3/13/17)	Ham Lake Staff	00:21:04
Ham Lake City Council Meeting (3/20/17)	Ham Lake Staff	00:47:10
Ham Lake Planning Commission Meeting (3/27/17)	Ham Lake Staff	00:40:28
Lexington City Council Meeting (3/2/17)	Lexington Staff	00:32:52
Lexington City Council Meeting (3/16/17)	Lexington Staff	00:15:25
Lino Lakes Planning & Zoning Meeting (3/8/17)	Lino Lakes Staff	00:52:53
Lino Lakes City Council Meeting (3/13/17)	Lino Lakes Staff	00:33:00
Lino Lakes City Council Meeting (3/27/17)	Lino Lakes Staff	00:28:17
Spring Lake Park City Council Meeting (3/6/17)	Spring Lake Park Staff	00:39:31
Spring Lake Park City Council Meeting (2/20/17)	Spring Lake Park Staff	01:18:03
<b>20 New Programs</b>		<b>17:23:50 New Hours</b>

# NORTH METRO TV

## Production Statistics 2017

	J	F	M	A	M	J	JU	A	S	O	N	D	17 Total	17 Average
<b>Programming Statistics</b>														
Cablecast Programs	2550.00	2317.00	1852.00										6719.00	559.92
Cablecast Hours	1851.00	1568.00	1322.50										4741.50	395.13
Programs Produced - Public	27.00	23.00	25.00										75.00	6.25
Program Hours Produced - Public	14.75	18.25	15.50										48.50	4.04
Prog. Produced - Affiliated Public	6.00	8.00	9.00										23.00	1.92
Prog. Hours Produced - Affil. Public	6.00	9.50	8.50										24.00	2.00
Programs Produced - City Staff	21.00	20.00	20.00										61.00	5.08
Prog. Hours Produced - City Staff	16.25	23.50	17.50										57.25	4.77
Programs Produced - NMTV Staff	33.00	22.00	16.00										71.00	5.92
Prog. Hours Produced - NMTV Staff	17.50	18.00	11.50										47.00	3.92
Total Public Programs Produced	33.00	31.00	34.00										98.00	8.17
Total Staff Programs Produced	54.00	42.00	36.00										132.00	11.00
Total Internal Programs Produced	87.00	73.00	70.00										230.00	19.17
% Staff Produced Programs	62.07%	57.53%	51.43%										57.39%	57.39%
% Public Produced Programs	37.93%	42.47%	48.57%										42.61%	42.61%
External Programs Submitted	81.00	18.00	33.00										132.00	11.00
External Program Hours	72.75	15.00	24.00										111.75	9.31
Total New Programs	168.00	91.00	103.00										362.00	30.17
<b>Equipment Usage Statistics</b>														
Facility Hours Available	208.50	199.00	246.00										653.50	54.46
Public Field Equipment Uses	10.00	9.00	12.00										31.00	2.58
Studio A	36.25	84.00	39.75										160.00	13.33
% of Available Time	17.39%	42.21%	16.16%										24.48%	24.48%
Studio B	26.00	25.50	24.00										75.50	6.29
% of Available Time	12.47%	12.81%	9.76%										11.55%	11.55%
Public MAC A Edit Suite	118.00	115.75	101.25										335.00	27.92
% of Available Time	56.59%	58.17%	41.16%										51.26%	51.26%
Public MAC B Edit Suite	111.50	114.75	108.00										334.25	27.85
% of Available Time	53.48%	57.68%	43.90%										51.15%	51.15%
Public MAC C Edit Suite	138.50	103.50	133.00										375.00	31.25
% of Available Time	66.43%	52.01%	54.07%										57.38%	57.38%
<b>Production Van Statistics</b>														
Production Hours	14.25	30.00	14.00										58.25	4.85
Number of Van Shoots	2.00	4.00	2.00										8.00	0.67
Average Hours Per Shoot	7.13	7.50	7.00										7.28	0.40
Number of New Volunteers	2.00	3.00	0.00										5.00	0.42
Volunteer Hours	14.00	22.00	11.00										47.00	3.92
<b>Public Access Statistics</b>														
Number of Workshops	9.00	6.00	7.00										22.00	1.83
Number of Students	31.00	24.00	45.00										100.00	8.33
PAP Volunteer Hours	140.50	210.50	169.00										520.00	43.33
Total Public Facility Usage Hours	523.50	461.75	476.75										1462.00	121.83
Tours	0.00	0.00	0.00										0.00	0.00
Tour Attendees	0.00	0.00	0.00										0.00	0.00

# North Metro TV

February 2017 Update

## Program Production

In February, a total of **73 new programs** were produced utilizing the North Metro facilities, funds, and services. This constitutes **69:15:00 hours of new programming**.

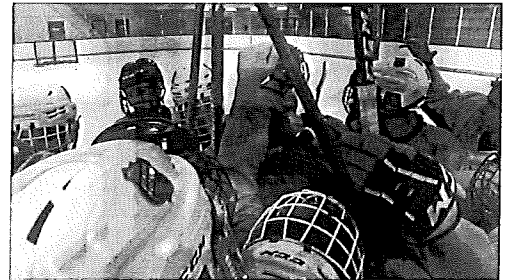
- 31 programs were produced by the public
- 22 programs were produced by NMTV staff
- 20 programs were produced by City staff



## Van Shoots

The van was used for **30:00:00 hours of production**. Equipment for the new production truck was completely installed and tested. The vehicle went out on its first shoot on January 27th.

- Boys Hockey: Simley vs. Spring Lake Park
- Girls Hockey: 5AA Semi-Final: Blaine vs. Rogers
- Girls Hockey: 5AA Semi-Final: Maple Grove vs. Centennial
- Girls Hockey: 5AA Final: Blaine vs. Maple Grove
- Boys Hockey: 5AA Semi-Final: Anoka vs. Centennial



## Workshops

Workshop	Instructor	Organization	Students
Chinese Opera Taping	Eric Houston	Video Club	2
Video Tips & Tricks Taping	Eric Houston	Video Club	3
Intro Class	Eric Houston	Blaine High School Business Professionals of America	4
Studio	Eric Houston	Blaine High School Business Professionals of America	4
Open Studio Night	Eric Houston	Video Club	12
Intro to NMTV	Eric Houston	General Public	1
<b>6 Workshops</b>			<b>24 Students</b>

## Home Movie Transfers

Home movie transfers have become one of our most popular services. Residents can transfer their family videos, film, slides, and photos at North Metro TV themselves for free, or pay NMTV to do it. Most participants want to do it themselves.

Month	Hours Transferred	Tapes	Film Reels	DVDs	Photos/ Slides	Fees Paid
January	205.75	58	174	46	80	\$675
February	165.75	65	41	14	672	\$411
	<b>371.5</b>	<b>123</b>	<b>215</b>	<b>60</b>	<b>752</b>	<b>\$1,086</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, outreach, or educational.

Month	Unique Individuals	Total Usage Hours
January	67	523.5
February	74	461.75
<b>TOTAL PUBLIC USAGE:</b>		<b>985.25</b>

## Production Highlights

### NMTV News Highlights

Each week Danika Peterson and Ben Hayle create a news program that highlights events, people, issues, and information important to citizens of our Member Cities. Some February highlights include the new Spring Lake Park elementary school coming to Blaine, the local non-profit Jack's Basket, a local flower shop giving back to its neighbors, the Arts in Harmony show, and local curlers winning big at the national championship. In addition to daily playbacks of North Metro TV News on the cable systems, there are over 359 local stories archived for viewers on the NMTV YouTube page. The page can be accessed through the [northmetrotv.com](http://northmetrotv.com) website.

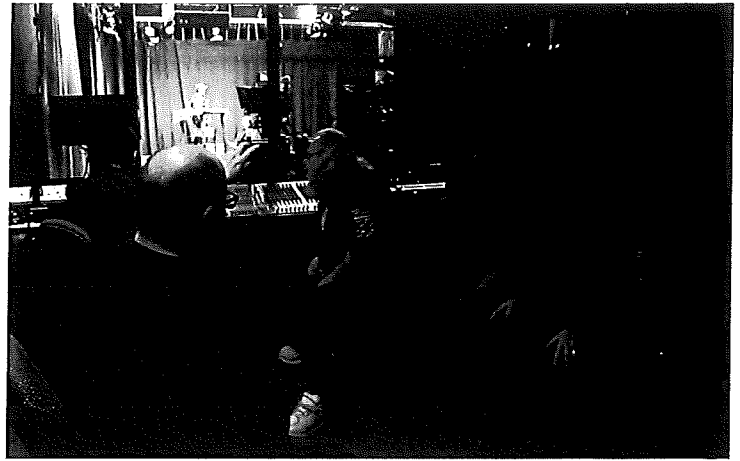


### BPA Project

Staff continued to work with the Blaine High School Business Professionals of America team. In addition to running through the classes with a new group of students, NMTV staff offered advice and technical assistance for reshoots of material. The team has advanced to the state tournament.

## Open Studio Night

Studio Manager, Eric Houston, is testing a new idea for video production at NMTV. He calls it "Open Studio Night." The idea is to have a fully crewed studio for anyone who would like to drop in to produce a program. The idea is to remove the barrier of needing to organize a crew for a shoot, and to encourage volunteers to meet and work with each other. For the first Open Studio Night, staff members Eric and Tarkor organized a couple of game shows for the crew to work on, and two volunteers came in ready with their ideas. Volunteer, Michelle Kurak, produced an episode of her recurring program, Exploding Reality. First-time producer Margaret Blaylock put together a comedic cooking show set in a zombie apocalypse. It's called B'on Apocalypse. The group had a great time recording and acting in the programs and many of them have ideas for the next Open Studio Night. We plan to offer it on a bi-monthly basis.



## Drone Service

T.J Tronson has successfully completed his 14 CFR 107 FAA training course and remote pilot application process. He is officially licensed to operate our drone for both internal and commercial purposes. He has been flying over the Member Cites to gather aerial footage for the government channel Carousel units, internal program usage, and for stock footage. Staff is currently working on a drone package that will allow us to both record and stream live video in HD. We are also working



on a marketing package for prospective City, non-profit, and commercial clients. We accepted a drone recording job with the 23rd Veteran non-profit in Duluth. They wanted aerial footage of their annual Nearly Naked Ruck March. The March raises money to help with the long-term transition process for soldiers leaving the military. Their efforts reduce veteran drug, alcohol, and medication abuse along with suicide, divorce and criminal rates. We were paid for the service and given permission to utilize the footage and group in our marketing materials.

## On-going Video Projects

Staff is working on quite a few projects. They include:

- Centennial HS Arrive Alive
- Centerville History Project
- Spring Lake Park High School Leo Club promo
- Blaine High School Thespian performances
- Blaine High School One Act Play, "Tracks"

## Production equipment consulting for cities and schools (48.5 hours)

### Blaine

- Spoke with Roark and Z Systems regarding state contract
- Met with Roark and Z Systems at Blaine City Hall to discuss moving forward without state contract.
- Met with Roark and Z Systems at Blaine City Hall to review current equipment and proposed upgrades.
- Created HD version of 11 existing Blaine Carousel graphics in advance of the installation of the new Carousel systems at NMTV.

### Spring Lake Park

- Created 6 new graphics for City Channel.
- Inspected and fixed dias monitor issued by the City of Spring Lake Park when testing the Makito X

**Ham Lake**

- Created 53 new SCALA/Carousel graphics.
- Modified and posted special Ham Lake snow removal video, in line with previous city snow removal videos. Created alternate line of dialog.

**Circle Pines**

- Met with Patrick and Chandra at Circle Pines City Hall for preliminary discussion about an HD upgrade.

**Lexington**

- Investigated sound issue and discovered a faulty switch.
- Investigated issue with recording to SD cards and found they were using the wrong kind of card. Found and recommended an appropriate card.
- Embedded Lexington snow removal video to the Lexington website.

**Centerville**

- No assistance was requested.

**Lino Lakes**

- Met with Jeff and Z Systems at Lino Lakes City Hall to inspect current control room and camera set-up.
- Reviewed A Systems initial bid and discussed it with Jeff.
- Asked about assuming SCALA functions. City staff planning meeting to discuss.

**All Cities**

- Received a demo presentation of the Ross Legislative Solution from a Ross rep.
- Spoke with Haivision regarding getting a loaner Makito X encoder and decoder for signal transmission testing.
- Created Legislative Solution hand-out for Cities.
- Took a one-hour install demo on the Makito X from Haivision.
- Planned Makito X installation and gathered/ordered appropriate additional cables and components.
- Visited Spring Lake Park City Hall to inspect site with an eye toward integrating the Makito X.
- Set up and tested Makito X encoder at Spring Lake Park City Hall and discovered multiple unexpected difficulties with installation, largely related to network capabilities.
- Wrote report on findings with the Makito X.
- Uninstalled Makito X encoder and gave to truck staff for additional testing.
- Created and annotated several screen shots of the Makito X settings that worked.

**Computer/Networking consulting for cities and schools**

No assistance was requested.

**City Channel 16 Playback Stats**

City	Number of Times Programs Played	Hours Programmed on Channel
Blaine	182	183:37:06
Centerville	14	34:12:53
Circle Pines	111	49:07:35
Ham Lake	91	55:58:42
Lexington	42	14:39:57
Lino Lakes	25	23:52:08
Spring Lake Park	54	46:39:54
<b>Totals:</b>	<b>519 Program Playbacks</b>	<b>408:08:15 Hours of Video Programming on Channels</b>

## Programs Produced by the Public

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Title	Producer	Runtime
Exploring Aviation	Rick Bostrom	00:22:23
It's Only Food With Chef John Politte (4 episodes)	John Politte	00:44:06
Centennial Middle School: Groovy Art Show	Mark Steensgard/Ribk Bostrom	00:07:15
Off Constantly (2 episodes)	Tim Dold	00:53:43
BBN News: Blaine BPA	Brandon Hanson	00:06:00
Say It!	Video Club	00:16:29
How Old? Celebrity Edition	Video Club	00:18:26
A Fresh New Day (3 episodes)	Anita Wardlaw	00:35:28
His Legacy TV (2 episodes)	Nonie Tanner	00:56:06
Cornerstone Church (2 episodes)	Rick Bostrom	00:58:41
Lovepower (2 episodes)	Ann Sandell	02:00:00
The Power of Love (3 episodes)	Rick Larson	01:30:00
Rice Creek Watershed District Meeting (2 episodes)	Theresa Stasica	05:41:16
Hope Church (2 episodes)	Cindy Hardy	01:31:56
Oak Park Moments (4 episodes)	David Turnidge	02:11:44
<b>31 New Programs</b>		<b>18:13:33 New Hours</b>

## Programs Produced by NMTV Staff

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Title	Producer	Runtime
Anoka County Board Meeting (2/14/17)	T.J. Tronson	01:05:05
NMTC Cable Commission Meeting	T.J. Tronson	00:42:26
NMTV News (3 episodes)	Danika Peterson/Ben Hayle	00:50:21
Wrestling: Blaine/Centennial	Kenton Kipp/Matt Waldron	01:38:56
Boys Hockey: Spring Lake Park/Centennial	Kenton Kipp/Matt Waldron	01:35:20
Boys Hockey: 5AA QF: Spring Lake Park/Maple Grove	Kenton Kipp/Matt Waldron	01:13:44
Adapted Floor Hockey: North Suburban/Anoka Hennepin	Kenton Kipp/Matt Waldron	01:01:12
Boys Hockey: Simley/Spring Lake Park	Kenton Kipp/Matt Waldron	01:55:15
Girls Hockey: 5AA SF: Blaine/Rogers	Kenton Kipp/Matt Waldron	01:54:03
Girls Hockey: 5AA SF: Maple Grove/Centennial	Kenton Kipp/Matt Waldron	01:58:20
Girls Hockey: 5AA Final: Blaine/Maple Grove	Kenton Kipp/Matt Waldron	02:15:47
Boys Hockey: 5AA SF: Anoka/Centennial	Kenton Kipp/Matt Waldron	01:37:00
Coaches & Captains (4 episodes)	Kenton Kipp/Matt Waldron	00:15:19
Sports Den (4 episodes)	Kenton Kipp/Matt Waldron	01:51:25
<b>22 New Programs</b>		<b>18:02:48 New Hours</b>

## Programs Produced by City Staff

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Title	Producer	Runtime
Blaine City Council Meeting (2/2/17)	Blaine Staff	02:09:50
Blaine City Council Meeting (2/16/17)	Blaine Staff	01:54:58
Centerville City Council Meeting (2/8/17)	Centerville Staff	03:00:08
Centerville City Council Meeting (2/22/17)	Centerville Staff	02:01:28
Circle Pines Park Board Meeting (2/7/17)	Circle Pines Staff	00:12:40
Circle Pines City Council Meeting (2/14/17)	Circle Pines Staff	00:42:50
Circle Pines Utility Commission Meeting (2/15/17)	Circle Pines Staff	00:29:59
Ham Lake City Council Meeting (2/6/17)	Ham Lake Staff	01:23:30
Ham Lake Planning Commission Meeting (2/13/17)	Ham Lake Staff	00:45:47
Ham Lake Park & Tree Commission Meeting (2/15/17)	Ham Lake Staff	01:20:49
Ham Lake City Council Meeting (2/21/17)	Ham Lake Staff	01:38:09
Ham Lake Planning Commission Meeting (2/27/17)	Ham Lake Staff	01:09:41
Lexington City Council Meeting (2/2/17)	Lexington Staff	00:48:40
Lexington City Council Meeting (2/16/17)	Lexington Staff	00:22:31
Lino Lakes Park Board Meeting (2/6/17)	Lino Lakes Staff	01:22:19
Lino Lakes Planning & Zoning Meeting (2/8/17)	Lino Lakes Staff	00:52:04
Lino Lakes City Council Meeting (2/13/17)	Lino Lakes Staff	00:41:09
Lino Lakes City Council Meeting (2/27/17)	Lino Lakes Staff	00:35:44
Spring Lake Park City Council Meeting (2/6/17)	Spring Lake Park Staff	01:04:20
Spring Lake Park City Council Meeting (2/21/17)	Spring Lake Park Staff	00:46:37
<b>20 New Programs</b>		<b>23:23:13 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).

## **EXECUTIVE COMMITTEE MINUTES**

Meeting of April 5, 2017

Executive Cmte. Present: Dick Swanson; Blaine, Matt Percy; Circle Pines, Cindy Hansen; Spring Lake Park

Absent: M. Murphy; Lexington

Others Present: Heidi Arnson; Executive Director, Rose Valez; Admin. Asst.,

### **CALL TO ORDER**

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

### **APPROVAL OF MINUTES**

**A motion to approve the March 1, 2016 Executive Committee meeting minutes was made by D. Swanson. Second, C. Hansen. Motion approved.**

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

- Staff reviewed the Carousel and Makito X quote from Alpha Video. A Carousel system will be purchased for each City channel and will be housed at the North Metro TV head-end. It will generate HD graphics and videos which will be displayed between scheduled programming such as meetings and events. Once the units are installed, NMTV staff will be able to create the majority of the content going on the channels, with direction from the Cities. This will relieve City staff of having to create the content for the channels. The Makito X transport system will solve the problem of transporting an HD signal from City Hall to the NMTV head-end at a reasonable cost. The quote included costs to set up one City with the capability to transmit an HD signal, and all of the rack equipment for all seven Cities. It will be necessary to add encoders and decoders as each City upgrades to HD. It was thought to be a good idea to start with one system, work out any problems, and then buy equipment through the North Metro TV budget as Cities upgrade. The Carousels and Makito X will be paid for with franchise fees collected in 2016 that were in excess of the original estimate. Once the equipment is paid for, the remaining fees will be returned to Cities.

**MOTION:** To recommend approval of the purchase of a Carousel System for each City and one Makito X system, as quoted by Alpha Video, to be paid for with franchise fees collected in 2016, with any remaining franchise fees to be returned to Member Cities. **Motion made by D. Swanson. Second, C. Hansen. Motion approved.**

- The two open positions at North Metro TV have been filled. Trevor Scholl was hired as the Municipal Producer. He has a degree in journalism from the University of Minnesota and has worked in community television for over three years. He will be responsible for providing video content for the City channels. Matt Waldron is the new Video Engineer. He had become the go-to guy for engineering the production truck and solving technical issues throughout the system. He was very involved in the NMTV HD upgrade from planning to integration. He has already solved several problems for Cities and is visiting each City to familiarize himself with the various set-ups. He will be assisting Cities with HD upgrades.
- The next quarterly meeting with CenturyLink has been scheduled for Monday, May 22nd, at 1:00 p.m., at North Metro TV.
- Staff will be working on the 2018 budget in May. It will be presented to the Commission in June for consideration.

#### **OLD BUSINESS**

- D. Swanson inquired as to whether there had been any news from CenturyLink regarding progress in Lexington and a customer service office in the North Metro. Staff stated that there had not been, but that CenturyLink was aware that the issues must be addressed by the next quarterly meeting.

#### **NEW BUSINESS**

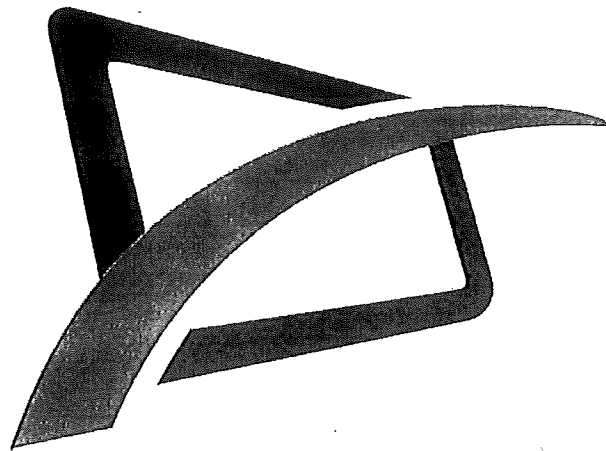
- Every year, as an administrative matter, the Commission has to decide whether or not to waive the statutory tort liability limits for insurance purposes. This decision determines the amount an individual would be able to recover on any claim to which the statutory tort limits apply. In the past the Commission has opted to NOT WAIVE the monetary limits on municipal tort liability. The Executive Committee recommends that the Commission NOT Waive the monetary limits.

**MOTION:** To NOT WAIVE the monetary limits on municipal tort liability. **Motion made by D. Swanson. Second, C. Hansen.**

- M. Percy will be unable to attend the next Executive Committee meeting.

#### **ADJOURN**

**Motion to adjourn made by C. Hansen. Second, D. Swanson. Motion approved.**  
**The meeting was adjourned at 6:24 p.m.**



# CITY HALL HD TRANSPORT AND TIGHTROPE

**DATE:**  
March 17, 2017

**Prepared for:**

**NORTH METRO  
TELEVISION**

**Presented by:**

Mike Pouh  
Frederick G Street



7711 Computer Ave.  
Edina, MN 55435



952.896.9898  
800.388.0008



info@alphavideo.com  
www.alphavideo.com



## **Introduction**

Alpha Video and Audio Inc. is pleased to present this proposal for the upgrade to HD transport for North Metro's City Halls, as well as the addition of local CableCast servers for City bulletin board services. This statement of work document outlines the equipment and services that Alpha Video will deliver and the responsibilities of North Metro Television for a successful implementation.

## **Local CableCast Servers**

Alpha Video will provide and install one eight-input router card to expand the existing video router system; seven Tightrope Media Systems CG330 servers for local bulletin board playout; and additional sync and signal distribution amps to integrate the new equipment into the recently-upgraded Master Control system. A new UPS (uninterruptible power supply) will also be provided for Rack 03 in Master Control to supply clean power for the new equipment. All cabling, including network connections to the new equipment, is included in this scope.

## **HD City Hall Transport**

Alpha Video will provide and install one HAI Vision six-card frame, populated with one HAI Vision dual-channel decoder card; one Ross frame synchronizer card; and all cabling needed to integrate the new equipment into the recently-upgraded Master Control system. A single-channel encoder will be provided, to be installed at one City Hall location. This upgrade will accommodate a single channel of HD from one city location on day one, but can be upgraded to handle additional channels in the future with the purchase and installation of additional equipment. All cabling, including network connections to the new equipment, is included in this scope.

## **Additional Installation Information or Requirements**

This proposal assumes that all existing equipment required for the functionality of the system is in proper operating condition and without defect. If any of the required existing equipment is not in proper operating condition, a change order may be required for the functionality outlined in this proposal. This proposal also assumes that work can be carried out continuously throughout the day with limited to no interruptions. If daily interruptions do occur during on site work, change orders may be required based on installation inefficiencies related to these interruptions.

## **Standards of Integration**

### **General**

- System and components will be installed in a neat and professional manner.
- All equipment will be new and blemish free unless otherwise noted in this document.
- All rack equipment will be installed using proper manufacture supplied mounting hardware.
- All rack blank spaces will be filled with either a blank or vent panel depending on need.
- All racks will have proper ventilation to prevent heat buildup and increase equipment life expectance.

### **Wiring and Cables**

- All rack cabling will be bundled neatly with cable ties or hook & loop depending on requirements.
- Low and high voltage cabling will be separated in according with NFPA 70 (National Electric Code) 2014 specifications.
- Proper strain relief at connections and joints will be used.
- Sufficient service loops shall be provided for all above ceiling elements, above racks, in racks or in cable trays so that components may be minimally moved or serviced without cable strain.
- All connectors are sized to fit the specific cabling and are installed in accordance with manufacture specifications.
- All permanently installed cabling will be labeled with permanent CAD generated labels.

### **Training**

Alpha Video will provide up to two hours of system training to no more than three key users on basic system operation and troubleshooting. The training will be provided once the system is fully functional and will be continuous during one day unless otherwise noted above.

### **Documentation**

Alpha Video will provide shop drawings that reflect the final system design. Upon project completion, a full set of "D" size as-built drawings will be provided, which will include components of the video, audio and control systems and any architectural documentation used during the installation. Those drawings will become property of North Metro Television upon receipt of final payment for this project.

### **Project Management**

Alpha Video will appoint a project manager that will be the main point of contact for North Metro Television regarding this project. The project manager will manage the installation timeline and coordinate work with any additional trades involved in this installation.

Installation can only begin when the project manager has been notified that construction progress has reached a point that electronic equipment can be installed in a secure and clean job site.

### **Change Requests**

When the scope of work is agreed upon, any changes to that scope must be requested as a change order. Change requests shall be submitted in written form so that both parties fully understand the request. Any costs resulting from change orders shall be the responsibility of North Metro Television.

### **System Warranty and Support**

Alpha Video offers a standard 90-day warranty on all systems installations. During the 90 days, Alpha Video will facilitate system service, phone support or repair at no charge for labor, travel, and/or shipping on any Alpha Video installed system or component. All system hardware is covered under the terms and conditions of each manufacturer's warranty. Alpha Video, at its option, may repair or replace any product or part of the products, which proves defective because of failure, under normal use, for the length of the 90-day warranty period. An optional extension for a full 1-year support agreement is available for purchase during the 90 day warranty period.

Phone support is available Monday through Friday during regular business hours of 8:00 a.m. to 5:00 p.m. Alpha Video's office number is 952-896-9898. Calls will be returned within a four-hour period. If the issue cannot be rectified over the phone a technician will be on site within 24 – 48 hours. Alpha Video will not be open on various holidays that occur during a Monday - Friday work week. North Metro Television agrees that prompt and full access to the system will be granted to Alpha Video at any time Alpha Video is on-site to service the system.

Products not provided by Alpha Video but included in this installation will not be covered by this warranty. Alpha Video is not responsible for any failure of equipment that is connected to or caused by Client furnished equipment. The warranty coverage will commence on date the Certificate of Completion form is signed by both Alpha Video and North Metro Television. Service issues after the 90-day period will be handled as time, materials and travel, plus fees associated with such work unless a warranty extension has been purchased. This warranty does not cover system misuse, reconfiguration or negligence on the part of North Metro Television.

### **Client Responsibilities**

This statement of work indicates the responsibilities of Alpha Video and Audio Inc. As in any system installation, this project contains a number of customer responsibilities. They include, but are not limited to:

- Any High Voltage AC necessary; there is currently no AC power in Rack 03 in Master Control. A 20-amp 120VAC circuit will need to be provided.
- Any necessary conduits, back boxes, or structural supports for mounted equipment
- One key point of contact for control system design verification
- Owner furnished equipment described above (PC, PC monitor, laptops, etc.)
- Provide access to the job site during normal business hours (7am to 5pm M-F)
- Coordination with Client staff for training times
- Disposal of existing equipment, cabling, and racks
- North Metro Television will be responsible for providing IT support, including (but not limited to) provision of static IP addresses and WAN routes for all new equipment on the NMTV LAN, as well as any additional bandwidth needed to support the services provided by the new equipment.
- North Metro Television will be responsible for providing a stable HD-SDI feed at the City location selected for upgrade to the new transport system.

### **Client Sign-Off**

As an appointed representative of North Metro Television, I hereby agree with and approve the above statement of work including all outlined Client Responsibilities. A purchase order for this project, in verbal or written form indicates acceptance of this statement of work.

Date: \_\_\_\_\_

Company: \_\_\_\_\_

Name: \_\_\_\_\_

Signature: \_\_\_\_\_



## Quotation

7690 Golden Triangle Drive, Eden Prairie, MN 55344

Phone: 952-896-9898 - Fax 952-896-9899 - Visit us at [www.alphavideo.com](http://www.alphavideo.com)

Date	Quote #	Cust #
03/17/17	AAAQ36033-01	

We are an equal opportunity employer

Prepared For:	Sales Representative:
<b>Heidi Arnsen</b> North Metro TV 12520 Polk St Ne Blaine, MN 55434 USA	<b>Mike Pouh</b> Sales Executive 952-841-3365 <a href="mailto:mike.pouh@alphavideo.com">mike.pouh@alphavideo.com</a>
<b>Phone:</b> (763)231-2801 <b>Fax:</b> (763)780-8242 <b>Terms:</b> NET 30 <b>Ship via:</b> Best Way	

ID #	Item	Description	Qty	Unit Price	Ext. Price
<b>City Hall Transport System</b>					
1	CBL-CG330-SDI	Tightrope CG-330-SDI Carousel bulletin board configured for broadcast in a 1RU chassis. SDI and Composite outputs, genlock input, hardware accelerated graphics. All Carousel features as well as interface with the Cablecast schedule for display of "Airs Again On", "Coming up Next" and Cablecast schedule bulletins updated dynamically throughout the day Includes Carousel Player License and Carousel Channel License. Includes 2 hours of remote installation support and end user training.	7	\$3,310.00	\$23,170.00
2	1UKIT-109	Rack Solutions mounting rails	4	\$120.00	\$480.00
3	PX-HSR8C-IBG	Harris Platinum MX 3G/HD/SD 8-input module	1	\$2,440.00	\$2,440.00
4	SFS-8622-A-R2A	Ross Video A/V Frame Synchronizer with Audio Embedding / De-Embedding	1	\$1,215.00	\$1,215.00
5	UDA-8705A-R2	Ross Video utility analog distribution amplifier	1	\$235.00	\$235.00
6	DEA-8805-R2	ROSS DUAL 3G/HD/SD-SDI EQUALIZING DA WITH REAR MODULE	4	\$390.00	\$1,560.00
7	OG3-FR-CNS	ROSS OPENGear NETWORKED FRAME SNMP MODULAR REAR	1	\$1,710.00	\$1,710.00
8	PS-OG3	ROSS 450 WATT UNIVERSAL POWER SUPPLY FOR OG3 FRAME	1	\$435.00	\$435.00
9	S-292E-HSDI1	Haivision Makito X Single SDI Encoder Appliance - H.264 High Profile Single Channel IP Video Encoder with SRT - Single 3G/HD/SD-SDI or Composite input; up to 1080p60 HD Video; 32 kbps to 25 Mbps; 16 channel AES digital / 2 channel analog audio input, 1 channel audio output ; 10/100/1000 Ethernet; 12 VDC w/ 90-240 VAC External Power with Locking Connector.	1	\$5,395.00	\$5,395.00
10	B-292D-HD2	Haivision Makito X Dual Decoder Blade - Dual HD/SD H.264 IP Video Decoder with SRT - HDMI and 2 x 3G/HD/SD-SDI output; up to 1080p60 HD Video or up to 1920x1200 60Hz Computer; 32 kbps to 25 Mbps; 16 channel SDI embedded and 2 channel analog audio output; 10/100/1000 Ethernet; 12 VDC; Chassis Required.	1	\$4,495.00	\$4,495.00



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## Quotation

Date	Quote #	Cust #
03/17/17	AAAQ36033-01	

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ID #	Item	Description	Qty	Unit Price	Ext. Price
11	F-MB6X-RAC	Haivision MB6 - Makito X/Makito/Barracuda/Torpedo2 6 Slot Chassis - Rackmount 1U Chassis - Up to 6 Makito X/Makito/Barracuda/Torpedo2 mini-blades, Dual Redundant AC power supply, 90-264VAC, 47Hz-63Hz, 300 Watt max.	1	\$4,495.00	\$4,495.00
12	RU-MB1-1	Haivision 1RU Mounting Bracket for one single height mini-blade appliance chassis	1	\$135.00	\$135.00
13	M-PREM-SUPP-1	Haivision Premium Maintenance & Support Program - 1 year. Includes access to telephone, email (24hr response), online chat based support and Haivision's web portal ticket system. Live call attendant. Access to support portal, knowledge base, FAQ, and basic training videos. Remote access assist; Critical software updates, bug fixes / patches, minor (x.1) and major (1.x) releases; System upgrade protection; Annual system diagnostic; Advanced replacement of defective hardware or on-site repair if applicable; Standard EPG updates.	1	\$1,440.00	\$1,440.00
14	SV-IN-EI	Haivision Onsite system configuration and commissioning support - North America ONLY; First day; 8 hours max per unit; standard business hours. Does not include network tuning or hardware installation.	1	\$3,500.00	\$3,500.00
15	SV-IN-TR	Haivision Onsite end-user and System Administration training with system configuration and commissioning support package - One day; 3 days max quote; 8 hours max per unit; standard business hours; Does not include network tuning or hardware installation. Must be quoted with SV-IN-EI; Note: Only available when bundled with on-site commissioning package on the same trip.	1	\$1,750.00	\$1,750.00
16	SMT2200RM2U	APC Smart-UPS 2200VA 2RU	1	\$975.00	\$975.00
<b>SubTotal</b>					<b>\$53,430.00</b>
<b>Installation</b>					
17		ALPHA VIDEO INTEGRATION	1	\$5,985.00	\$5,985.00
18		ALPHA VIDEO PARTS & MATERIALS	1	\$1,070.00	\$1,070.00
<b>SubTotal</b>					<b>\$7,055.00</b>

Shipping charges are not included and will be billed at actual cost.  
Sales tax is not included and will be billed at actual.  
A 3% convenience will be added for credit card payments.

Sub Total	\$60,485.00
Sales Tax	\$0.00
Shipping	\$0.00
<b>Total</b>	<b>\$60,485.00</b>

Accepted by: \_\_\_\_\_ Date: \_\_\_\_\_ PO: \_\_\_\_\_

All information contained within this quote is valid for the next 30 days. Thereafter, all prices and applicable charges are subject to change.  
MINIMUM 15% RESTOCKING FEE WITH ORIGINAL PACKAGING.

# **DISBURSEMENT OF 2016 FRANCHISE FEES OVERAGE**

**TABLE I**

	MEMBER CITIES		2017 COMMISSION		OVERAGE
	ACTUAL FRANCHISE FEES		ESTIMATED FRANCHISE FEE		
<b>TOTAL:</b>	1,257,389	-	1,140,000	=	117,389
<b>EQUIPMENT:</b>	117,389	-	60,485	=	56,904

★

**TABLE I**

CITY	OVERAGE FRANCHISE FEE AFTER EQUIPMENT		CITY REVENUE AS % OF SYSTEM REVENUE		TOTAL FRANCHISE FEES RETAINED BY CITY
Blaine	\$56,904	x	54.62361%	=	\$31,083.02
Centerville	\$56,904	x	3.44182%	=	\$1,958.53
Circle Pines	\$56,904	x	4.67755%	=	\$2,661.71
Ham Lake	\$56,904	x	13.84393%	=	\$7,877.75
Lexington	\$56,904	x	1.74207%	=	\$991.31
Lino Lakes	\$56,904	x	16.13064%	=	\$9,178.98
Spring Lake Park	\$56,904	x	5.54037%	=	\$3,152.68
<b>TOTAL:</b>	\$56,904	x	99.99999%	=	\$56,903.98

★ All amounts are rounded to nearest dollar.



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## LIABILITY COVERAGE – WAIVER FORM

LMCIT members purchasing coverage must complete and return this form to LMCIT before the effective date of the coverage. Please return the completed form to your underwriter or email to [pstech@lmc.org](mailto:pstech@lmc.org)

This decision must be made by the member's governing body every year. You may also wish to discuss these issues with your attorney.

League of Minnesota Cities Insurance Trust (LMCIT) members that obtain liability coverage from LMCIT must decide whether to waive the statutory tort liability limits to the extent of the coverage purchased. The decision has the following effects:

- *If the member does not waive the statutory tort limits*, an individual claimant would be able to recover no more than \$500,000 on any claim to which the statutory tort limits apply. The total all claimants would be able to recover for a single occurrence to which the statutory tort limits apply would be limited to \$1,500,000. These statutory tort limits apply regardless of whether the city purchases the optional excess liability coverage.
- *If the member waives the statutory tort limits and does not purchase excess liability coverage*, a single claimant could potentially recover up to \$2,000,000 for a single occurrence. (Under this option, the tort cap liability limits are waived to the extent of the member's liability coverage limits, and the LMCIT per occurrence limit is \$2 million.) The total all claimants would be able to recover for a single occurrence to which the statutory tort limits apply would also be limited to \$2,000,000, regardless of the number of claimants.
- *If the member waives the statutory tort limits and purchases excess liability coverage*, a single claimant could potentially recover an amount up to the limit of the coverage purchased. The total all claimants would be able to recover for a single occurrence to which the statutory tort limits apply would also be limited to the amount of coverage purchased, regardless of the number of claimants.

Claims to which the statutory municipal tort limits do not apply are not affected by this decision.

LMCIT Member Name \_\_\_\_\_

Check one:

- ☐ The member **DOES NOT WAIVE** the monetary limits on municipal tort liability established by Minnesota Statutes, Section 466.04.
- ☐ The member **WAIVES** the monetary limits on municipal tort liability established by Minnesota Statutes, Section 466.04 to the extent of the limits of the liability coverage obtained from LMCIT.

Date of city council/governing body meeting \_\_\_\_\_

Signature \_\_\_\_\_ Position \_\_\_\_\_

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

Tuesday, April 4, 2017

**CALL TO ORDER**

The meeting began at 10:30 a.m.

**MEMBERS PRESENT**

B. Petracek, D. Buchholtz, D. Krueger, M. Ericson, J. Karlson, P. Antonen, C. Arneson

**MEMBERS ABSENT**

**OTHERS PRESENT**

H. Arnson

**APPROVAL OF MEETING NOTES**

The meeting notes of February 28, 2017 were approved by consensus.

**EXECUTIVE DIRECTOR REPORT**

- H. Arnson reviewed the Carousel and Makito X quote from Alpha Video. A Carousel system will be purchased for each City channel and will be housed at the NMTV head-end. It will generate HD graphics and videos which will be displayed between scheduled programming such as meetings and other events. Once the units are installed, NMTV staff will be able to create the majority of the content going on the channel, with direction from the Cities. This will relieve City staff of having to create the content for the channels. The Makito X transport system will solve the problem of transporting an HD signal from City Hall to the NMTV head-end at a reasonable cost. The quote included costs to set up one city with the capability, with all of the rack equipment necessary to add Cities as HD upgrades are completed. It was thought that it was a good idea to start out with one system, work out any problems, and then buy equipment through the NMTV budget as Cities upgrade. The Carousels and Makito X will be paid for with franchise fees collected in 2016 that were in excess of the original estimate. Once the equipment is paid for, the remaining fees will be returned to Cities.
- The two open positions at NMTV have been filled. Trevor Scholl, was hired as the Municipal Coordinator. He is a 2011 University of Minnesota graduate with a degree in Journalism. He has been working in community television for over three years, and has experience producing news and creating content for municipal programs. He was working part time at both North Metro TV and Northwest Channel 12, or CCX Media, when he was offered the position. Matt Waldron is our new Video Engineer. Matt has worked for North Metro TV for 15 years as the Sports Producer. He has been the go-to guy for engineering the production truck and was very involved in the NMTV HD upgrade, from planning to integration. He is skilled in video production, computer animation and graphics creation and networking. He is eager to learn new things and has already picked up our internal system networking and drone operation. In his first week Matt responded to several problems at City Halls.
- CenturyLink has scheduled the next quarterly meeting for Monday, May 22nd at 1:00 p.m. at the North Metro TV facility.
- Staff will begin working on the 2018 budget in May. A request was made for anticipated COLA adjustments and employee benefits changes. The NMTV budget for these items is based on the City adjustments.

### **OLD BUSINESS**

- C. Arneson reported on Blaine's work toward acquiring Emergency Communications/Management tools and developing procedures. He stated that Blaine will be testing "Civic Ready" and hope to go live soon.

### **NEW BUSINESS**

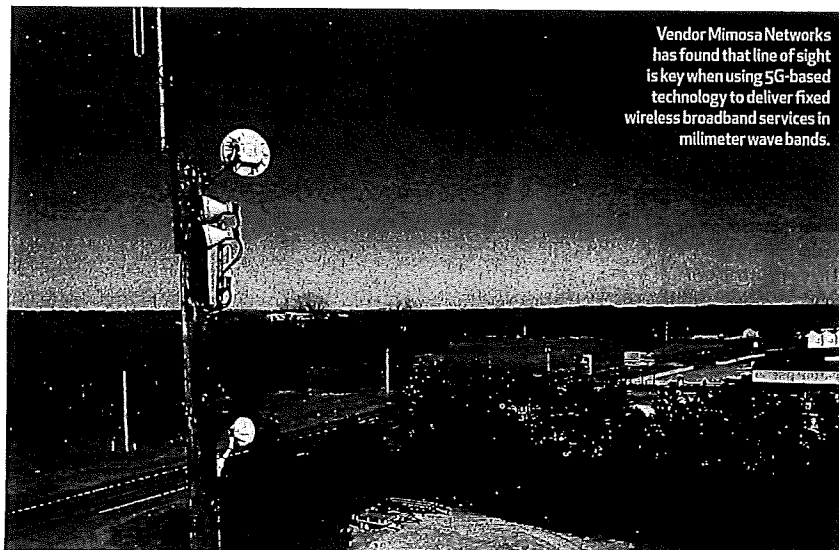
- J. Karlson asked about the lack of bookmarks on several Lino Lakes meetings. Staff reported that the person responsible for that had been out of the office with an extended illness, and that new procedures have been put in place for the meeting bookmarking. It has been assigned to Eric Houston as a primary with two additional employees trained as back-up, to be sure meeting bookmarking is not delayed in the future. All meetings that were missing bookmarks have been corrected.

### **ADJOURNMENT**

The meeting was adjourned at 11:18 a.m.

# Fiber in the Sky

5G poses a fast, furious threat — and opportunity — for U.S. cable operators



Vendor Mimosa Networks has found that line of sight is key when using 5G-based technology to deliver fixed wireless broadband services in millimeter wave bands.

BY JEFF BAUMGARTNER

**T**HE 5G RACE is on.

Operators around the world are embarking on prestandard trials of 5G, an emerging, next-generation wireless technology that promises to deliver a jaw-dropping array of futuristic advances in communications: multi-Gigabit broadband speeds, innovative mobile services, the Internet of Things and such revolutionary applications as self-driving cars.

With its ability to tap into wide swaths of spectrum, 5G will deliver wireline-like multi-Gigabit speeds that could competitively upend the already shifting market of fiber- and cable-delivered broadband services. (See Translation Please, page 20.)

Though real-world service speeds are to be determined — providers are still working out the kinks — some early trials have shown the potential to deliver speeds of more than 30 Gigabits per second (on the extreme end), according to a survey of market activity from test and measurement firm Viavi.

That's 30 times faster than the current gold standard of 1 Gbps delivered to residential customers by today's all-fiber networks of ISPs such as Google Fiber, and by cable operators that have upgraded to DOCSIS 3.1. According to a recent Comcast estimate, a 1-Gbps connection would allow a consumer to download a 600-Megabyte TV episode in four seconds. Using that same estimate, a 30-Gbps link would allow a user to download multiple seasons of a TV series in that same short span.

## RISKS AND OPPORTUNITIES

For cable operators, 5G will be friend and foe. Though it could pave the way for new competitive entrants, the technology's wireline backhaul requirements represent a potentially lucrative business-services opportunity for MSOs. 5G is also expected to play a role as cable operators pursue and expand their own mobile and wireless strategies.

The delivery date for full 5G is widely debated, but the current consensus expectation is that

## TAKEAWAY

The emergence of super-fast 5G wireless technology could roll the market for wireline broadband services.

(mmWave) bands. But there are some drawbacks, as mmWave requires smaller cell sizes than 4G and more of them in order to reach the Gigabit-class speeds and coverage 5G promises. Those mmWave signals are easily blocked by trees and buildings, so early 5G fixed wireless deployments will require good line of sight.

The good news for service providers is that 5G will work with both licensed spectrum, like what's being set aside in the 28 GHz band and 37-39 GHz bands, but will also operate in unlicensed bands, like those available in lofty regions of 64-72 GHz.

Another area to look is the 3.5 GHz Citizens Broadband Radio Service band that is set for release. Laxdal said the use of beam-forming and beam-tracking with 5G, which points "beamlets" directly at a user's smartphone, aims to ensure that such traffic does not interfere with WiFi traffic also operating in that band.

Jaime Fink, chief technology officer and cofounder of Mimosa Networks, said his company, which provides fixed wireless systems for thousands of ISPs, has experimented in those higher bands and has found that "perfect line of sight" is indeed required.

"I'm skeptical of it being a non-line-of-sight opportunity," he said, noting that mmWave could work for very short range urban small cells and be useful for obtaining excess capacity that can expand and enrich the mobile network. Likewise, he said, mmWave could work across short-ranges on building rooftops.

And though 5G lab trials show promise in terms of supporting high speeds, "What is hard is delivering it en masse into neighborhoods ... and that's where it gets hazy," Fink said.

Fink and others believe mmWave will need to be paired with services delivered in the sub-6 GHz bands that work better where foliage is present and in suburban markets.

Charles Cheevers, chief technology officer, consumer premises equipment at Arris, agreed that 5G will likely need to support a "dual-PHY" network architecture that taps mmWave with a fallback to sub-6GHz spectrum that doesn't need direct line of sight.

AT&T will put some of those technical challenges to the test. It's working with Nokia on a 5G fixed-wireless lab test that is streaming subscription over-the-top service DirecTV Now over a 29-GHz system using the vendor's commercially available AirScale radio access platform.

AT&T, which is conducting the trial at its Middletown, N.J., facility, has said 39 GHz

the technology will be ready for market-wide launches by 2020. Phase I of the standard should be completed by mid-2018, while phase II, which will add some incremental capability, is expected by the fourth quarter of 2019, with 5G-enabled smartphones anticipated to hit the market by late 2019.

"Between 2019 and 2022, we'll see that sharp, aggressive launch of 5G," Glenn Laxdal, head of network products for Ericsson North America, said.

However, the initial impact of the new 5G infrastructure will be felt much sooner, as prestandard and precommercial implementations enter the fray. Imagine fast, fixed wireless access services delivered to the home that are easier to execute, in comparison to 5G's trickier mobile and IoT aspects.

Verizon Communications is hitting on that fixed access idea early, with plans to launch 5G precommercial Gigabit broadband trials in 11 U.S. markets by mid-2017. Those trials, which will involve "several hundred cell sites that cover several thousand customer locations," will test how the technology performs in various topologies in areas including Ann Arbor, Mich.; Atlanta, Bernardville, N.J.; Brockton, Mass.; Dallas; Denver; Houston; Miami; Sacramento, Calif.; Seattle; and Washington, D.C.

Given its focus on Gigabit-class speeds, 5G will also need gobs of spectrum. One great place to look for that is in the millimeter wave

## 5G: Five Things to Know

- 1) The initial use case for "precommercial" 5G products will be Gigabit-class, fixed wireless broadband access speeds to the home.
- 2) The move to full 5G technology and more advanced use cases, such as mobility, support for the Internet of Things and low-latency apps like self-driving cars, aren't expected to emerge on a widespread commercial basis until 2020.
- 3) 5G is not the sole domain of carriers with licensed spectrum. It will operate in both licensed and unlicensed spectrum.
- 4) 5G will rely partly on spectrum in the millimeter wave bands, which require short distances to deliver high speeds and good line-of-sight connections. Given that scenario, 5G operators will likely want to also employ spectrum in the bands below 6 GHz as a fallback.
- 5) 5G is a wireless technology, but underpinning it with solid, wired backhaul networks will be critical. That's a major opportunity for cable operators with massive fiber-rich networks, and could drive more M&A activity as mobile carriers seek important backhaul options.

— Jeff Baumgartner

and the 28 GHz mmWave bands are "particularly attractive," given the large amounts of bandwidth available there.

That idea falls in line with what some analysts expect. Strategy Analytics, for example, has said video is an "anchor" use case for 5G, arguing it could become a platform that could rival pay TV services delivered via cable, satellite and telco IPTV networks.

Even though 5G fixed wireless is an option being pursued by carriers like Verizon, the economics might not add up for other market entrants.

"It's a tough proposition," Cheevers said, noting that a newcomer would have to undercut the current provider in the market while also facing higher deployment costs.

Another challenge is the eye test, as any 5G fixed wireless setup will likely require an outdoor mount.

"The aesthetics are a problem, too, in order to win business from existing wired providers," Cheevers said. "I think the cable industry is quite comfortable with the customers they currently have because of that dynamic."

### CABLE'S 5G OPPORTUNITY

While the competitive threat posed by fixed 5G is questionable, 5G's need for small cells that must also be connected to rich fiber networks to backhaul all of that traffic is "where the cable operators come in," Laxdal said.

Cable's widespread broadband networks are also among the driving reason behind rumors that Verizon is interested in buying Charter Communications.

However, cable operators are also positioned to take advantage of other 5G use cases, including fixed wireless access in residential and business service areas where MSO wired networks have yet to reach.

Some cable providers could also take advantage of the future mobile use cases for 5G, as MSOs such as Comcast and Charter trigger and develop services fueled by mobile virtual network operator (MVNO) deals with carriers such as Verizon.

Those MSOs, which have mobile products in the works, have likewise started to show their 5G hands.

Charter, for example, is already conducting 5G tests, following up on its application for experimental licenses for the pilots from the Federal Communications Commission, company CEO Tom Rutledge said on the company's earnings call in January.

"We intend to use these field trials as learning opportunities to provide us with better insight into the capabilities of our wireline network when attaching radios with high frequency licensed and unlicensed spectrum," he said, noting that he views 5G as a capacity-enhancing play more so than a mobile service play.

Comcast, which plans to launch a mobile product by midyear, is also eager to explore the 5G waters, at least with respect to power and backhaul that can be supported by the MSO's roughly 650,000 miles of plant.

"I think that 5G is an exciting evolution in the business," Neil Smit, president and CEO of Comcast Cable, said on the company's fourth-quarter earnings call in January. "We're doing some testing right now. We think that it's going need economical space, power and backhaul ... We think that we're well-positioned to participate in the 5G rollout, no matter how it happens, as a result of having all those assets in place already."

Cheevers said the multiple-dwelling unit (MDU) market is one that's well-suited to 5G. Apartments and condominiums represent a simpler option that would let operators take advantage of facilities with good line of sight and buildings with access to fiber.

"If I was a cable operator, I'd look at the MDU acquisition [opportunity]," Cheevers said.

CableLabs, the cable industry's R&D organization, has been heavily engaged with wireless, including work with the 3rd Generation Partnership Project (3GPP) and as a board member of the MulteFire Alliance, which is eyeing 5G services in unlicensed bands.

"We are following 5G very actively ... It's on our radar," Belal Hamzeh, vice president of wireless technologies at CableLabs, said, noting that nearly half of the organization's global members are also mobile operators.

5G operators will need a pervasive infrastructure power and backhaul, which "aligns well with the cable infrastructure," he said. "Having the cable industry involved in 5G should not be a surprise to anybody."

But not all cable operators are sold on the promise of 5G. For one, Liberty Global, which operates both fixed and mobile service in Europe and other regions, is wary the returns won't justify the capital requirements.

### CAPEX CONCERNS

"We worry about that leap," Liberty Global CEO Mike Fries said last week at the Mobile World Congress show in Barcelona, Spain.

"We think 5G is actually at a crossroads," he said, noting that capital requirements should be part of a 5G discussion that has centered on collaboration and cooperation. "It's not predestined."

Fries said he fears that such an investment might not be forthcoming, particularly in Europe, if the environment in which Liberty Global and others operate doesn't become healthier, and if the continent's mobile market doesn't undergo a much-needed wave of consolidation.

"One hundred twenty operators vying for declining revenues is a difficult place to be in," Fries said. By comparison, he said, the U.S. "has it right in many respects" when it comes to the number of mobile competitors vying for share.

"It's going to be a difficult act here in Europe to see this 5G vision come to fruition if we don't create a more stable competitive environment," Fries said. "There are too many mobile operators in Europe today. It's very difficult to see a return with that much competition."

Amid that uncertainty, top cable technology suppliers are keying on this wireless shift and are adjusting accordingly.

Casa Systems, a vendor that has traditionally focused on products for hybrid fiber-coaxial networks, has been expanding into mobile and wireless in recent years to match the pursuits of its MSO partners and as a way for the vendor to enter new markets. Of recent note, it added 5G-focused small cell products and management products to its portfolio.

Casa's mobile-facing products are getting "considerable momentum" and now counts about 25 "customer engagements," according to Andrew Gibbs, the company's vice president of product management.

MSOs are in a great position to "be the dominant service providers going forward as 5G takes shape," he said, noting that have the wired infrastructure to support and invest in small cell systems that serve schools, enterprises, hospitality venues and, later, smart cities.

Arris, another top MSO supplier that counts Comcast and Charter as top customers, is going deeper into wireless and mobile through a proposed \$800 million acquisition that includes Brocade Communications's Ruckus Wireless unit.

Arris CEO Bruce McClelland said the deal represents a critical, defining moment in the company's history, as many of its MSO customers pivot into wireless and mobile services.

"If I'm right, I think we'll look back at this five years from now and say, 'Gosh, that was a great move,'" McClelland said. "It could take a variety of different forms, but I think at the end of the day they're all going to be wireless operators."

5G may enter the picture at Arris down the road, but early on McClelland expects the pending deal to initially focus on augmenting capacity for standard 4G LTE mobile applications. **Q**



"If I was a cable operator, I'd look at the MDU acquisition [opportunity]."

CHARLES CHEEVERS, ARRIS

# Congress Powers Down FCC's Privacy Rules

It's unclear what kind of oversight lies ahead for online user data

BY JOHN EGGERTON

**W**ASHINGTON — The Republican Federal Communications Commission and Congress have tag-teamed to put the agency's broadband privacy regulations down for the count. Could the Title II reclassification that created them be next?

FCC chairman Ajit Pai signaled that was his preference.

First Pai, with an assist from Michael O'Rielly, voted to stay enforcement of the data-security portion of the rules. The House then followed the lead of Senate Republicans and narrowly pushed through a Congressional Review Act resolution that would invalidate all of the rules and prevent the FCC from restoring them in substantially the same form.

That would be unlikely to happen under Pai anyway, but the CRA would future-proof them from restoration under a Democratic administration.

The FCC rules required Internet service providers to get their subscribers' permission to collect and share a broad category of sensitive information, including most importantly the Web browsing and app use that marketers — with an eye toward targeting — crave.

It also had data security elements, breach notification requirements and a prohibition on take-it-or-leave-it regimes in which sharing data was a quid pro quo for the ISP programs.

The FCC can still come up with rules along the lines of the Federal Trade Commission's approach to edge provider privacy — based on the sensitivity of the data and without requiring opt-in for Web browsing or app use — using its authority over common-carrier Customer Proprietary Network Information (CPNI). However, that also probably wouldn't happen if Pai could find a way out from under the Open Internet order first.

President Donald Trump is expected to sign the bill (and may even have signed it by press time), adding his imprima-

## TAKEAWAY

ISPs will not face tougher restrictions on collecting and sharing info than edge providers.

tur to the effort to invalidate former FCC chairman Tom Wheeler's effort to put stronger privacy regulations on ISPs because of their perceived "gatekeeper" status vis-à-vis edge provider data-collection giants such as Google and Facebook.

ISPs had promised before, and promised again last week, to abide by a set of principles they committed to in an effort to keep the FCC from adopting the privacy rules last October, rules from which both Pai and O'Rielly dissented.

But that framework is full of "shoulds" and "mays," not "musts," and that had privacy advocates using terms such as destroy and damage in decrying the vote as rewarding robber baron ISPs that wanted to write their own rules.

The FCC rules required ISPs to get opt-in permission to collect and share user data for a broad category of "sensitive" information, including Web and app use. Edge providers such as Google and Facebook can collect and share such informa-

tion with marketers without getting user permission up front.

That's the main sticking point for ISPs, who say that is a thumb on the scale for edge providers, creating an uneven playing field and threatening the ad-supported economic model that allows for all that free online content.

Congressional Democrats have been talking about a new privacy Wild West created by invalidating the rules. But ISPs have not been under those rules since 2015, when the FCC's reclassification of broadband providers as telecoms under Title II of the Communications Act deeded the agency broadband privacy oversight. What was once the FTC's province would not have been under the new regime until year-end.

It is unclear what the FCC's broadband regulatory approach will be if the rules go away, unless the Open Internet order is repealed. If that happens, Pai has signaled he will be happy for said oversight to return to the lighter-touch approach of the Federal Trade Commission. The FTC's power is essentially to enforce privacy promises and pursue violations as unfair or deceptive practices on a case-by-case basis, rather than writing new regulations.

Pai has said his core goal would be a regulatory framework that establishes a uniform expectation of privacy — and, that popular Republican space, a "level playing field."

Democratic senators have been saying that if the FCC wants to harmonize privacy protections with the FTC, then why not give the FTC rulemaking authority so it could adopt similarly strong regulations? That, however, is highly unlikely under a Republican administration. **O**

## Repeal and Protect

**WASHINGTON** — Following the House vote to repeal the FCC's broadband privacy rules, chairman Ajit Pai said he would work with the FTC to protect online privacy. He did, however, suggest that "the best way to achieve that result would be to return jurisdiction over broadband providers' privacy practices to the FTC, with its decades of experience and expertise in this area." That can only happen if the FCC reverses the Title II classification of ISPs (see mainbar).

Republicans could pay a political price for their votes to invalidate the rules — at least 50 in the Senate and 241 in the House.

And at least one group was trying to exact that price with a public calling-out. At press time, the advocacy group Fight for the Future had mocked up a billboard it said was going up in D.C., calling out those 50 senators, while a second was targeting House Communications Subcommittee chair Marsha Blackburn (R-Tenn.) in her home state.

The group was also taking credit for the fact that 25 Republicans voted against the measure, though it is unclear how they would have voted had they been needed to push it over the top. — John Eggerton

## They betrayed you.

These members of Congress voted to gut Internet privacy and allow ISPs like Comcast to sell your personal information to advertisers without your consent.

Alexander (R-TX)	Cornyn (R-TX)	Grubbs (R-UT)	McGuire (R-AZ)	Shaw (R-NE)
Blumenthal (D-CT)	Cotton (R-AZ)	Grubbs (R-UT)	McGuire (R-AZ)	Shaw (R-NE)
Blumenthal (D-CT)	Cotton (R-AZ)	Grubbs (R-UT)	McGuire (R-AZ)	Shaw (R-NE)
Blumenthal (D-CT)	Cotton (R-AZ)	Grubbs (R-UT)	McGuire (R-AZ)	Shaw (R-NE)
Blumenthal (D-CT)	Cotton (R-AZ)	Grubbs (R-UT)	McGuire (R-AZ)	Shaw (R-NE)
Blumenthal (D-CT)	Cotton (R-AZ)	Grubbs (R-UT)	McGuire (R-AZ)	Shaw (R-NE)
Blumenthal (D-CT)	Cotton (R-AZ)	Grubbs (R-UT)	McGuire (R-AZ)	Shaw (R-NE)
Blumenthal (D-CT)	Cotton (R-AZ)	Grubbs (R-UT)	McGuire (R-AZ)	Shaw (R-NE)
Blumenthal (D-CT)	Cotton (R-AZ)	Grubbs (R-UT)	McGuire (R-AZ)	Shaw (R-NE)
Blumenthal (D-CT)	Cotton (R-AZ)	Grubbs (R-UT)	McGuire (R-AZ)	Shaw (R-NE)

Save Broadband Privacy 2017

## Justice's New Antitrust Chief Is a Known Quantity

**WASHINGTON** — President Donald Trump has tapped a Justice Department veteran and legal adviser to oversee merger review as assistant attorney general atop the Antitrust Division.

The White House has signaled its intention to nominate Makan Delrahim for the post. Justice's Antitrust Division gets most of

the media merger Hart-Scott-Rodino antitrust reviews, including its current review of the AT&T-Time Warner Inc. merger.

Scott Cleland, who heads up the Internet service provider-backed group Net Competition, said Delrahim can be expected to be "a traditional Republican antitrust enforcer, with a constitu-

tional conservative approach to the law," plus "a whole lot more clout than any traditional DOJ Antitrust chief."

Most recently, Delrahim has been deputy assistant and deputy counsel to the President, joining in January from a Los Angeles law firm where he had been partner. The White House did not

identify the firm, but according to OpenSecrets, which tracks the professional movements of government employees, it was Brownstein Hyatt Farber Schreck, a firm whose clients have included Comcast, NCTA: The Television & Internet Association and Dell, among many others.

— John Eggerton



Delrahim

## D.C. BRIEFS

### Minnesota Adopts Own Privacy Rules

WASHINGTON — The Minnesota State Senate had its own exclamation point for Congress's move to roll back broadband privacy rules. In light of Congress's approval of the Congressional Review Act, and the president's expected signoff, the state Senate voted to adopt its own version of the regulations, according to the *Twin Cities Pioneer Press*.

Republicans had argued that state privacy laws would remain in effect even after the Federal Communications Commission's rules

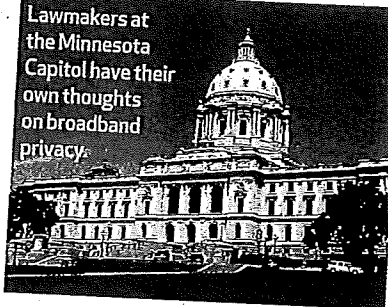
were scrapped. Minnesota's Senate took that cue and added its own.

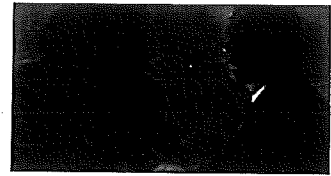
An amendment to an economic development bill passed the Minnesota Senate with the help of one Republican vote. A similar amendment was added to the House bill, which must now be reconciled with the Senate bill.

The Minnesota amendment would prevent any ISP with a franchise agreement in the state from collecting personal information from customers "without express written approval from the customer" or from denying service if that approval was not given.

Those were two key elements of the FCC regulations that were rolled back.

Lawmakers at the Minnesota Capitol have their own thoughts on broadband privacy.





# agenda

## Rush Toward Unlimited Plans Complicates Cable's Mobile Moves

Comcast, Charter expected to focus on service bundles, less on going head-to-head with carriers

BY JEFF BAUMGARTNER

**A** PIVOT TO UNLIMITED data plans by all of the nation's largest cellular service providers is muddling the wireless plans being developed by Comcast and other U.S. MSOs.

AT&T and Verizon Communications, which recently joined Sprint and T-Mobile in offering unlimited mobile data plans, are undermining strategies that some cable operators were pursuing as they look to stitch their ever-expanding WiFi networks to mobile virtual network operator (MVNO) agreements.

Cable operators can put together unlimited plans of their own that use a WiFi-first stance that offloads traffic on metro and in-home WiFi networks and falls back on cellular connections.

"They're scrambling internally" as other carriers launch and emphasize unlimited mobile plans of their own, an industry source with knowledge about those strategies said.

"The industry's rush to unlimited certainly complicates things," Craig Moffett, senior research analyst at MoffettNathanson, said in an emailed statement. "The cable operators will now have no choice but to make their own wireless plans unlimited as well. That's a problem. Their revenues will be capped. Their costs will not."

Still absent from the discussion are precise details about how cable operators intend to enter the wireless market, including how those offerings will be priced and packaged and how they will fit into their broader service offerings.

Comcast, which has created a mobile division and intends to launch a mobile offering of its own by mid-year, has shed some light on its service, which will take advantage of the company's MVNO deal with Verizon.

Speaking at an investor conference in late February, Comcast chairman and CEO Brian Roberts said company watchers can expect Comcast's product to be profitable, but it will launch as part of a bundle.

"The product itself is going to save you money by taking our bundle," Roberts said, and the wireless product will also help Comcast sell other products in its arsenal.

Last week, *FierceWireless* reported that the popular

### TAKEAWAY

Fiber and WiFi are key assets cable brings to mobile.

iPhone will factor into a service that will carry the Xfinity Mobile brand.

Charter Communications is also looking to take advantage of an MVNO deal it inherited from its merger with Time Warner Cable and Bright House Networks, but hasn't revealed its go-to-market strategy.

Another person familiar with Comcast's mobile ambitions said it would be incorrect to think that Comcast's plan is to take the major mobile carriers head on. Amplifying Roberts's point, the source said Comcast views the wireless business as additive, a way to enhance and build on its existing product portfolio. "That's an important nuance," the source said.

Another industry analyst believes that the surge of

It all ties into competition among those carriers, which have no choice but to match up because the market is already saturated.

"A lot of that innovation is coming from the pricing and packaging side, which means unlimited becomes a very enticing offer to consumers," Wang said.

He also said not to expect uniformity on how MSOs enter the market or how the move to unlimited models will affect them. How those operators jump in and the goals they set will be determined by whether they have a favorable MVNO agreement and what kind of other network assets they already have at their disposal, including fiber and WiFi infrastructure.

"To get into a consumer smartphone/wireless play is a very narrow definition of a very broad opportunity," Wang said. "I view it more as a launching point."

Cable operators have a lot of fiber in their networks, but it's clear that their advantage in WiFi networking assets will be played aggressively.

Comcast, for example, has about 16 million WiFi hotspots deployed in metro and business locations and inside home gateways. At last check, the Cable WiFi roaming consortium, a group that includes Comcast, Cox Communications, Altice and Charter, has deployed about 500,000 hotspots that their respective customers can use.

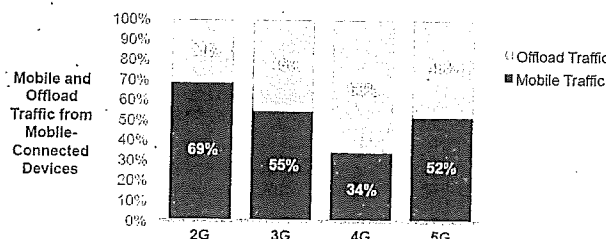
The amount of data being offloaded on WiFi networks is expected to surge in the next few years.

As of 2016, 63% of all traffic from mobile-connected devices was being offloaded to fixed networks by means of WiFi devices and femtocells each month, according to Cisco Systems's latest *Visual Network Index: Global Mobile Data Traffic Forecast*. The same report expects that half of IP traffic — fixed and mobile — will be WiFi by 2021, versus 30% on wired networks and 20% via mobile/cellular.

Wang of IBB Consulting said cable operators must be agile and be ready to make changes quickly in the hyper-competitive and ever-evolving mobile market.

"When you create an entry strategy, things can change," he said. "You have to make sure you really think through your strategy, but make sure it's flexible." ○

Global Mobile Data Traffic and Offload Traffic, 2021  
4G Devices Offload More Traffic Than 3G and 2G



\*Offload includes traffic from dual-mode devices (i.e., supports cell & Wi-Fi, excl. PCs) over Wi-Fi/Small cell networks  
Source: Cisco VNI Global Mobile Data Traffic Forecast, 2016-2021

unlimited offerings from incumbent mobile giants won't have a big impact on cable's efforts to re-enter the market, despite past stumbles like the short-lived "Pivot" joint venture with Sprint.

"It's another form of bundling," Bruce Leichtman, president and principal analyst of Leichtman Research Group, said. "It doesn't have to be differentiated from other wireless services. The differentiator, potentially, is the ability to bundle. That's where the value lies, not in the mobile service itself."

Plus, the latest unlimited craze is not occurring to counter what cable operators have in store, according to Jefferson Wang, senior partner, wireless, at IBB Consulting, a firm that works with a range of mobile and cable providers.