



**To:** Dr. Mike Riggle  
Board of Education

**From:** Dr. R.J. Gravel

**Date:** Wednesday, May 4, 2016

**Re:** FY2016 Technology Broadcasting Purchase

**Recommendation**

It is recommended that the Board of Education approve the purchase of Tightrope's Cablecast Broadcast Automation system to support WGBK's television broadcasting activities from AVI Systems, Inc. of Arlington Heights in the amount of \$85,200.

**Background**

At the June 22, 2015 meeting, the Board of Education approved the FY2016 technology budget which included costs to purchase a new broadcasting server and streaming software and equipment in the amount of \$368,000 (\$69,600 for a 5-year lease; \$20,000 for a one-time software program purchase).

*Broadcasting Server*

Several years ago the school district purchased two stand-alone file servers to meet the needs of the broadcasting program, as a result of hardware and software limitations that existed at the time of purchase. Fortunately, these limitations no longer exist, and there is no longer a need to maintain separate file servers for use by students and staff members using Mac-based software.

As part of a recent storage resources and network audit, it was determined that the existing stand-alone broadcasting file servers could be consolidated into the district's primary storage resources environment. Our primary storage resources environment currently has available capacity to meet the current and future needs of the broadcasting program, without the purchase of a separate server. To take advantage of this available capacity we sought a hardware / software streaming solution. In partnership with the broadcasting faculty, we researched potential streaming hardware and software solutions and provide additional information below.

*Streaming Hardware and Software*

WGBK-TV operates two independent public access channels broadcast through Comcast and Wide Open West's network (Glenbrook North - Ch. 16; Glenbrook South - Ch. 26). The television channels offer our community members the opportunity to view student produced content that is created in-studio and on-location for special events such as athletic contents and the annual graduation ceremonies. Due to limitations of the existing hardware and software, students have experienced difficulty programming an on-air schedule, preparing newly produced content for distribution on the cable channel, and broadcasting live events.

After meeting with our broadcasting teachers responsible for supporting WGBK-TV's activities, we identified a series of expectations for a streaming solution:

- Students and teachers need the ability to establish an on-air schedule that can be modified as necessary from inside and outside of the studio,
- Students and teachers need to be able to take newly generated content (in 4K resolution), import the content into the system's library, and to schedule the content without the need to further downgrade media files,
- The solution needs to provide the ability to switch between pre-recorded content and live productions on an as-needed basis,
- Content from the broadcasting channel should be available through the designated public access channels, as well as through an online streaming platform,
- The solution should allow the students and teachers to interact with the programming interface from multiple device platforms (Chrome OS, Mac OS X, Windows),
- The hardware components of the should should be able to be stored in a remote, secure location, without limiting the ability for students and teachers to manage the day-to-day operations of the broadcast.

After an investigation into potential hardware and software solutions, one solution stood out from the rest. The recognized hardware and software solution that met all of the district's requirements was Tightrope's Cablecast Broadcast Automation system. Following a comprehensive quotation process that involved the opportunity for local solution providers to tour our television studios, we are recommending the proposal received from AVI Systems, Inc. of Arlington Heights.

**Purchase of the broadcast automation solution will be made using funds budgeted for the 2015-2016 school year. The efforts of the Technology Services team to utilize existing storage resources, as well as the efforts of our broadcasting teachers to identify the specific needs of their students and curriculum, will result in an overall cost savings in the amount of \$282,800.**

# Retail Sales Agreement



AVI Systems Inc., 717 West Algonquin Road Arlington Heights, IL, 60005 | Phone: (630)477-2300, Fax: (630)477-2301

Proposal Number: 737530  
Prepared For: Glenbrook High School Dist 225  
Attn: Ryan Manly

Proposal Date: May 09, 2016

## R3 Tightrope Video Server & Hosted Streaming Service

Prepared By: Thomas Burns  
Phone: (630)477-2354  
Email: thomas.burns@avisystems.com

### BILL TO

Attn: R.J Gravel  
Glenbrook High School Dist 225  
3801 W Lake Ave Ste 200, N/A  
Glenview, IL, 60026  
Phone: (847)486-4745  
Email: rgravel@glenbrook225.org  
Customer Number:5385

### SITE

Attn: R.J Gravel  
Glenbrook High School Dist 225  
3801 W Lake Ave Ste 200, N/A  
GLENVIEW, IL, 60026  
Phone: (847)486-4745  
Email: rgravel@glenbrook225.org

### PRODUCTS AND SERVICES SUMMARY

Equipment	\$45,111.00
Integration	\$35,090.00
PRO Support	\$3,500.00
Shipping & Handling	\$1,499.00
Tax	\$0.00
<b>Grand Total</b>	<b>\$85,200.00</b>

### PRODUCTS AND SERVICES DETAIL

#### PRODUCTS:

<u>Model #</u>	<u>Mfg</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>	<u>Extended</u>
<b>CableCast Pro</b>					
AVI-TBD-MATERIAL	TIGHTROPE	FLEX LITE Single Chanel Video Recorder/Player 4TB	2	\$12,000.00	\$24,000.00
CBL-LIVE-330	TIGHTROPE	Cablecast Live Streaming Video Server	2	\$3,024.00	\$6,048.00
CBL-REFLECT-LIVE	TIGHTROPE	Cablecast Reflect Live Streaming Service	2	\$1,117.00	\$2,234.00
CBL-CG330-SDI	TIGHTROPE	Cablecast CG330 SDI	2	\$3,543.00	\$7,086.00
CBL-SVR430-VOD	TIGHTROPE	Cablecast Pro with VOD	1	\$8,222.00	\$8,222.00
CBL-REFLECT-VOD	TIGHTROPE	Cablecast Reflect Video on Demand Service	1	\$1,135.00	\$1,135.00
CBL-SVC-ON-DAILY	TIGHTROPE	Daily Onsite Training and Installation Assistance	2	\$1,861.00	\$3,722.00
CBL-SVC-TRVL-DOM	TIGHTROPE	Air Travel - Domestic	1	\$2,300.00	\$2,300.00
BMD-VHUBSMART6G1212	BLACK MAGIC DE	Smart Videohub 12x12	2	\$1,363.00	\$2,726.00
BMD-CONVNTRM/BA/SDIAN	BLACK MAGIC DE	Teranex Mini - SDI to Analog 12G	2	\$484.00	\$968.00
BMD-CONVNTRM/YA/SMTPN	BLACK MAGIC DE	Teranex Mini - Smart Panel	2	\$84.00	\$168.00
BMD-CONVNTRM/YA/RSH	BLACK MAGIC DE	Teranex Mini - Rack Shelf	1	\$142.00	\$142.00

60-439-20	EXTRON	MDA 3AV, Distribution Amp.	2	\$195.00	\$390.00
60-190-20	EXTRON	RSF 123 GRAY	2	\$85.00	\$170.00
ULE-217	IKEGAMI	21.5-inch HDTV Full HD 1920x1080 pixel professional monitor with stand.	2	\$895.00	\$1,790.00
IK-RMK-08V	IKEGAMI	Rack mount adapter for ULE-217	2	\$115.00	\$230.00
10-0356	Teradek	Slice 356 Rack-mount H.264 HD-SDI Video Decoder	2	\$1,945.00	\$3,890.00
10-0106	Teradek	Cube 106 PoE HD-SDI Encoder	2	\$1,945.00	\$3,890.00
AVI-TBD-MATERIAL		10/100 USB Project Allowance	1	\$1,000.00	\$1,000.00
<b>Sub-Total: CableCast Pro</b>					<b>\$70,111.00</b>

**System Installation & Engineering**

Engineering & Drawings  
Project Management  
On Site Integration  
MISC CABLE MATERIAL  
Testing & Acceptance  
Travel Expense

**Sub-Total: System Installation & Engineering** **\$10,090.00**

**Sub-Total:** **\$0.00**  
**Total:** **\$80,201.00**

**PRO SUPPORT:**

<u>Model #</u>	<u>Mfg</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>	<u>Extended</u>
AVISSA1YR	AVI SYSTEMS	1 Year System Support Agreement	1	\$3,500.00	\$3,500.00

Unless otherwise specified. The prices quoted reflect a discount for a cash payment (i.e., check, wire transfer) made by Customer in full within the time stated for payment on each invoice. Discount only applies to new items included on the invoice, and only applies if the balance on the invoice is paid in full.

All returned equipment is subject to a restocking charge. The prices are valid for 30 days and may be locked in by signing this Retail Sales Agreement.

Overdue balances are subject to a finance charge of 1.5% per month, or interest at the highest rate permitted by applicable law. In the event AVI must pursue collection of unpaid invoices, Customer agrees to pay all of AVI's costs of collection, including its attorneys' fees.