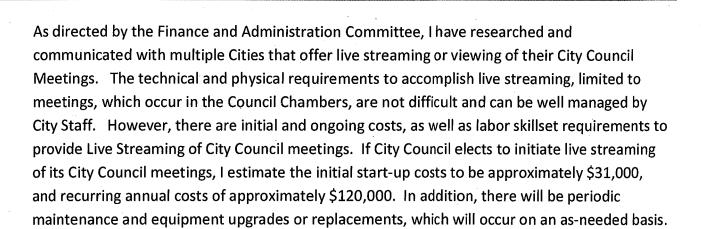
### **MEMORANDUM**

To: Michael O Geisel, City Administrator

From: Matthew Haug, Information Technology Director

Date: May 4, 2017

Re: Live Streaming City Council Meetings



Six cities responded to my inquiry via our Missouri Municipal League group request. The summary table below details the expenses both initial and monthly each incurs. Every entity surveyed emphasized the labor necessary to accomplish video streaming. The smallest video production, which was not real time, required a minimum of one staff member, while the higher quality, higher volume providers required up to five full time staff positions. The largest expense, by far, is for the production staff needed to provide a quality experience. Additionally I have attached a quote from the TSI, our vendor for the A/V System and System maintenance at City Hall.

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City of

Chesterfield

Table below is a summary of costs as reported by various agencies.

Org.	Providers	Hits	Initial Hardware	Monthly Cost	Personnel
O'Fallon IL	Access Channel / In-House / Virtual Town Hall via Earth Channel		\$30,000	\$5,000/yea r = \$415/mont h	Intern from SIUE for Sound, Asst. City Admin for Cameras
O'Fallon MO	In-House	50-100 council	\$18,000 initial	N/A	5 Full-Time Employees 2-3 each meeting
St. Charles	Swag-IT/Charter/ATT - ISG/Modern Communications	3,100 in February	\$40,000 Switch + 4 cams at \$50,000 each=\$240,000	\$550	4 Full-Time and 1 part- time in 2 at each meeting
St. Peters	Granicus	1,100 Average per mtg	\$25,000 Hardware	\$1,000	4 People to run meeting, 4 FT and 4 PT for production.
Brentwood	YouTube, not live, Cable Access / Key West	100 views post event	4 CCTV 1 PTZ	\$1,000	1 - Full-Time Production/Video Person
Parkville MO	LiveStream & Vimeo/Curious Eye does cam work			\$560 streaming/\$850 hardware/\$50 per mtg. personnel	

Based on my investigation, and the attached quote, I estimate that hardware, software, installation, programming, and training to cost approximately \$31,000. The monthly cost for a subscription service of reasonable quality, complete with the agenda bookmarking function is \$550/month.

It is my recommendation that if Council elects to proceed to provide live streaming, we need to:

- 1. Have a qualified vendor install and program the necessary hardware.
  - a. Includes all hardware installation and setup.
    - i. Cameras
    - ii. Encoder
    - iii. Network and Power Cables
  - b. Includes all software and streaming service setup.
  - c. Includes all interface (Crestron) programming to allow for interaction of our existing audio/video system output to the video feed.
  - d. Includes training of all staff members on both the use of and troubleshooting of common equipment malfunctions.
  - e. Estimated Cost = \$30,000
- 2. Use a quality streaming service provider to both stream AND host our videos.
  - a. Service will include bookmarking the Video to match our Agendas.
  - b. Estimated Cost = \$600 per month / \$7200 per year.

- 3. Hire two (2) new staff positions, in order to reliably assure that one person can attend each Council meeting to run the live feed/production and to allow for post-production quality control.
  - a. Includes monitoring the cameras and switching the video feeds when required.
  - b. Post-production work.
  - c. **Estimated Cost = \$110,000**

In summary and for budgeting purposes, after the initial \$31,000 start-up costs, the annual live streaming budget would be approximately \$120,000.

Matthew Haug

Information Technology Director

#### **Project Number 16195**

4/25/2017 Page: 1

\* \* Proposal \* \*

**TSI Global Companies, LLC** 700 Fountain Lakes Blvd.

St. Charles, MO 63301

636-949-8889 Fx 636-925-2111

City of Chesterfield 690 Chesterfield Parkway West Chesterfield, MO 63017

C03107 636-537-300

Pro	iect	Title:

#### **Streaming Solution**

Mfg-Item No.	Qty Description	Unit Price	Extended	
	Streaming Solution			
	Based off of notes from walkthrough meeting as well as notes and specs provided JB&A to Chesterfield			
		Power requirements to be discussed after acceptance of proposal and provided by		
	others.		•	
	1 Tricaster Mini - Switcher/Streamer	6,378.68	6,378.68	
	1 Tricaster HD-4 Two Year Coverage	1,484.28	1,484.28	
	1 Tricaster Advanced Edition Software	2,122.68	2,122.68	
	3 PT-20X-SDI-GY-G2 PTZ Camera	1,807.47	5,422.41	
	1 HC-JOY-G2 Joystick for Cameras	318.14	318.14	
	3 HCM-1-WH Universal Wall Mount for Camera	95.76	287.28	
CRESTRON	3 Wall Plate 4K DigitalMedia 8G+ Transmitter 100,	465.50	1,396.50	
	Black Textured	E00 E0	4 705 50	
CRESTRON	3 4K DigitalMedia 8G+ Receiver & Room Controller 100 100 [Just Released]	598.50	1,795.50	
Liberty	1000 CAT6 550 23/4P UTP CMR BLUE	167.58 M	167.58	
	1 Misc HDMI/Audio/Patch Cables	532.00	532.00	
	1 Misc equipment and cost to extend joystick into room	332.50	332.50	
	1 Added Data Line - Equipment and Labor	665.00	665.00	
		·		
	Equipment Subtotal		20,902.55	
	40 T1.	75.85	3,034.00	
	16 Engineering/Design	80.00	1,280.00	
	16 Project Management	70.00	1,120.00	
	32 Programming	100.00	3,200.00	
	4 Documentation	50.00	200.00	
	8 Commissioning	70.00	560.00	
	4 Material Handling	59.39	237.56	
	Installation Subtotal		9,631.56	

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\* \* Proposal \* \*

## **TSI Global Companies, LLC** 700 Fountain Lakes Blvd.

St. Charles, MO 63301

636-949-8889 Fx 636-925-2111

Mfg-Item No.	Qty Description	Unit Price Extend
Legend: M=1	000Ft	
This * * Propo	osal * * is Valid for 30 Days.	\$30,534.
		Dave Dwerlkotte, ddwerlkotte@tsi-global.co
I Accept This Quote		Date: