
Date: November 3rd, 2020
To: Administration & Finance Executive Committee
From: Jeremy Hughes, Information Technology Manager
Subject: Virtual Meeting Options

Purpose

To inform the Administration & Finance Executive Committee of various virtual methods of participation that could be applied to meetings carried out in Council Chambers.

The attached document describes various virtual meeting participation options, the technical requirements to implement each option, and the associated costs of doing so.

Direction is requested from the Administration & Finance Executive Committee to describe how they would like to proceed, based on the options detailed in this document.

Attachments

Attached is a document titled "Virtual Meeting Options" (3 pages).

<p>This report requests direction from the Administration & Finance Executive Committee.</p>
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Virtual Meeting Options

Methods of Participation

Various virtual methods of participation could be implemented for meetings held in Council Chambers:

- **Archive**
 - Meeting audio and video is recorded and uploaded to a social media platform
- **Stream**
 - Meeting audio and video is broadcast live over the Internet
- **Conference**
 - Meetings are participated in by attendees at remote locations

Virtual participation methods may be combined. For example, a meeting could be both streamed and archived, or a conference invitation could be extended to a limited number of remote attendees, with the resulting video streamed live on the public Internet and later archived.

Technical Requirements

Each method of participation has specific technical requirements. Combination of participation methods necessitates the inclusion of the technical requirements for each method being utilized.

Technical Requirements	Archive	Stream	Conference
Social Media Platform	Required	Required	
Camera	Required	Required	Required
Microphones	Required	Required	Required
Speakers			Required
Streaming Equipment		Required	
Streaming Software		Required	
Conferencing Equipment			Required
Conferencing Licensing			Required
Video Editing Software	Required		
Labour	Required	Required	Required

Cost

Each technical requirement can generally be met by a range of options. Each option has associated costs.

Social Media Platform

Options include services that can host uploaded video or broadcast live streams, such as YouTube, Facebook, Vimeo, etc. YouTube hosts videos for free, but may include ads. Vimeo is an ad-free service, but costs \$1,140 / year for streaming and \$660 per year for just hosting. It may be possible to broadcast on multiple platforms simultaneously.

Additionally, our existing CivicWeb Portal can be extended with the “Video Manager HD” module. This module allows for links to join upcoming YouTube live streams to appear on the CivicWeb landing page, and for links to archived YouTube videos to be added to minutes. The “Video Manager HD” option includes streaming encoder hardware and costs \$5,600 / year. This cost represents a 53% increase in total CivicWeb Portal costs.

If video archives are to be maintained with any sort of resiliency, additional data storage will be required for raw video. The amount of storage required will grow at a rate of approximately 1.17 GB per hour of HD footage, or 4.92 GB per hour of 4K footage.

Camera

Shaw has installed a video camera in Council Chambers that also receives input from the microphones in the room. Shaw has offered to make video recordings of Town Council meetings available to us. However, their recordings of meetings have so far been unreliable, and can be of poor quality. If there is any expectation of control over our meeting content, or the desire to include content from non-Council meetings, we will have to provide our own camera.

A professional camcorder costs anywhere between \$2,000 and \$5,000. Cinematic cameras cost more. Cheap webcams are not recommended. Some accessories, such as a tripod and recording media, may also be required. Additional adapters and cables may be required to integrate with conferencing equipment.

Alternatively, a USB conferencing room camera costs approximately \$1,000. Active USB extension cables will be required.

Microphones & Speakers

The existing sound system in Council Chambers incorporates both speakers and microphones.

The sound system’s microphones may be integrated with a video camera using existing outputs. Additional adapters and cables may be required.

The sound system’s speakers and microphones may be integrated with a conferencing system through the installation of a USB card at a cost of approximately \$400. Additional cable installation may be required.

Streaming Equipment

A live stream requires video to be encoded and uploaded to the Internet. This requires hardware to encode the video, and may require additional hardware to stream the video, depending on the implementation.

A professional video encoder costs anywhere between \$500 and \$1,500.

Streaming Software

Open source streaming software is available.

Microsoft Teams meetings may also be broadcast using “Teams Live Events”, which requires a “Microsoft Stream” license, which is included in Office 365 licensing.

Streaming is generally not an automatic process. Streams must be prepared ahead of time and are normally attended to while active to ensure they are functioning correctly. However, a streaming server may be employed to schedule and automate some of these processes.

Conferencing Equipment

The ThinkSmart Hub conferencing equipment that controls meetings in the Committee Room could be duplicated in Council Chambers at a cost of approximately \$1,750.

Additional television displays may also be considered at a cost of \$1,000 to \$2,000 per unit. Additional displays would allow for all meeting participants to view presentations without physical strain. Additional cabling will be required for any additional displays.

Conferencing Licensing

Creating a new Teams Room requires an Office 365 E3 license, a telephone system license, a conferencing license, and a domestic calling license. Total cost is approximately \$660 / year.

Video Editing Software

Recorded videos will generally have to be edited and encoded prior to uploading to the public Internet. This process also allows for the inclusion of branding and other professional quality improvements over raw video.

Professional video editing software can be acquired at an approximate cost of \$550 / year.

Labour

Adding video capture to every public meeting will result in additional labour costs. Post-production costs can be estimated at approximately 1-2 hours per meeting to be archived. Live streaming costs can be estimated as the duration of each meeting. Conferences generally require setup and moderation.

Recommended Steps

As there are currently no legislated requirements to provide virtual participation, we are seeking direction about which virtual methods of participation are of value to Council. Once that is determined, we can select from the presented options to facilitate those methods.