



EXECUTIVE DEPARTMENT

Information Technology Division

Memorandum

To: City Council
CC: Phyllis Clark, Carol Mitten, Bourema Ouedraogo
From: Sanford Hess
Regarding: UPTV Issues and Coming Upgrades
Date: **August 3, 2022**

Moving back to in-person meetings in April 2022 was a major transition for UPTV. **All** of UPTV's current staff (Production Coordinator, Production Assistant, and three Camera Operators) started during the pandemic, so the more complex in-person environment was a new challenge that none of these staff members had experienced before.

There have been at least three different issues with the broadcast since April, some of which continue:

1) **Members calling-in to meetings on the phone.** In 2021, while City meetings were entirely online, the City changed its phone system. The UPTV equipment that was previously used to link phone calls to the Council Chamber audio was unusable with the new phone system. In March 2022, we purchased hardware to work with the new phone system. However, the new hardware was limited by our inability to control the audio output, with the result that anyone calling in from the phone heard an echo of their own voice. After a few weeks of issues, we stopped using the hardware and used a different method with the new phone system, which seems to have resolved the echo problem, although it requires more steps by the camera operators. We can now support multiple people calling in to the same meeting using a conference call, although audio issues make it difficult for callers to hear on their phones – they must listen to the online Livestream.

2) **Audio levels and noise in the meetings.** At the three initial meetings (April 4, 11, and 18), there were complaints about the volume. On April 21, we gathered several staff in place to test and set audio for the different inputs associated with each microphone. Those settings were then tweaked over the next few weeks due to individual variances. This addressed most of the volume issues. However, audio from the meetings has a recurring “dirtiness” that we believe is due to the aging analog mixers, which have less flexibility to mix inputs and less stable connections (creating the noise in the audio) than current digital equivalents. Replacement with a digital system is the best solution here.

3) **The Livestream has been inconsistent – starting late and dropping out.** Based on comments received by people watching the Livestream, this appears to have happened on May 9, June 6, and June 27. Issues with the Livestream are due in large part to the technology: an old release of the Livestream software, running on an older machine. Staff has learned to take steps before each meeting to clear out storage on this machine. Hopefully, this will avoid further issues.

When these problems first manifested in April, City staff began working on a plan for replacement of the aging components. The audio system in Council Chambers was up for replacement in Fiscal 2023 (planned for \$37,000) and the Video Production Switcher in Fiscal 2025 (\$15,000).

Beginning in April, City staff took the following steps:

- On May 9, 2022 the Council passed Budget Amendment #7, which moved \$50,000 into the fiscal year 2022 budget for equipment replacement. These were items (the Tricaster, Microphones, and Audio Mixers and Amplifiers) that were scheduled to be replaced in upcoming fiscal years. The flexibility afforded by the approval of the budget amendment allowed us to be able to start the process early.
- In May and June, the City engaged with Key Code Media in a consultative process to understand our environment and propose a complete solution with equipment, installation, and support.
- In July, the City signed a contract with Key Code Media at a total cost of approximately \$41,000. Happily, we expect costs to be less than the \$50,000 initially estimated.
- Items have been ordered. We expect the work to occur in two phases. Based on the shipping delays we're seeing for the ordered equipment, especially the audio components, the phases map out this way:
 - Phase 1 – September / October 2022
 - Install all the video hardware (and audio for items that arrive early) and run cabling for new audio.
 - Phase 2 – December 2022 / January 2023
 - Install all the audio hardware.

While we're all frustrated that the problems will linger for several more months, the resolution described above progressed as quickly as we could under the circumstances.

The contract for work should address our audio and video issues in several different ways:

- The analog mixers will be replaced by digital ones, eliminating the failing plugs.
- Digital mixers will also give us more control on the audio mix, for example, permitting the "mix-minus" output that would better integrate with our new phone system.
- The Livestream process will be replaced by a dedicated piece of hardware (an AJA HELO Plus H.264 Advanced Streamer and Recorder) that will provide a better image and be more dependable.
- The contract includes professional installation, acceptance testing, and a year of support.