Essentials for Live Streaming a Worship Service

By Bob Kelley

1. **Streaming Service**
   A good option is a YouTube Premium account to livestream. $11.99/month

2. **Computer**
   A *minimum* requirement for our use is a Windows 10, Dual Core Processor, 2 GB Memory and a video card that does Direct X10.1 (almost all do this anymore) Screen Resolution 1280 X 720

   The **recommended** configuration is an i7 processor, 8 GB of memory, and a dedicated video card with 2GB of video memory and a screen resolution of 1920 X 1080

   We bought a Dell 8300 for $1400 but you can find a decent i7 laptop with good specs for $700

3. **Web Camera**
   You can use the included webcam and microphone in most laptops, but an external camera and mike allow you more freedom to place things

   We got the PTZOptics 20x-USB Gen2 Full HD Broadcast and Conference Indoor PTZ Camera because we will place it at the back of our sanctuary and it has a remote to move back and forth and up and down and zoom it. It was $1799 But you can get a decent webcam for $100

4. **Microphone**
   You have to have a good mike input. We ended up with the Shure CVG18-B/C Gooseneck Condenser Microphone, 18-Inch, Inline Pre-Amp, Flange Mount, Cardioid for $99. Others include

5. **Sound Mixer**
   To get the microphone input into the computer you will need a usb mixer. We got the BEHRINGER U-PHORIA UMC202HD, 2-Channel Audio Interface We paid $118 for on Amazon, but it is currently $177

6. **Video Streaming Software**
   First off, you will need an encoding software to package the video and audio for streaming. We are using vMix. (www.vMix.com)

   There is a free low-resolution version that gives you only 4 inputs. The high-resolution 4 input version (which I recommend) is $60. If you are just adding a mike input and a camera and not adding any images, videos, or audio files., 4 inputs are plenty.

   However, we are adding videos and images. We got the version of vMix that goes from 4 inputs to 1000 inputs and costs $350

7. **Video Editing Software**
   You will need a good video editing software. We are using **VideoPad** from NCH Software (www.nchsoftware.com) and it is really good. The master version is on sale for $69 and the more limited version is $39.95

8. **Video Conversion Software**
   Also useful is **Prism video file converter** from NCH. There used to be a free version but the full version is only $19.99

9. **Audio Editing Software**
   We use Audacity (https://www.audacityteam.org/) to edit audio files and to pull audio out of video files. It is awesome and it is FREE!

10. **Remote Control Software**
    And finally, if all your equipment is in the front of the sanctuary and you want to control that computer from the back of the sanctuary, you need remote control software. We use the free TightVNC (https://www.tightvnc.com/)

There are tutorials on the web on how to do live stream, but if you need advice just email me bob@the-kelleys.com

Bob Kelley - May 2020