Live streaming, video casting, and captured video have become an integral part of our social media experience. YouTube, a website dedicated entirely to video, is the second most used search engine in the world. When people want to find out about something, they use Google or YouTube now. If you want an answer, you go online.

Thankfully, our churches have answers to some of the most perplexing problems humans run into:

- “Why am I here?”
- “What must I do?”
- “Where am I going?”

People are starving for answers to these and many other questions of meaning and faith.

Your church and its ministries have answers.

Put them online!

This resource shares some basics on how to do a live stream for social media consumption. With the trend towards personal and authentic experiences online, you do not need the “best” equipment or high production value to meet the people where they are. No need for editing or mixing, special effects or stylists. Just keep it real and faithful and those who have eyes, ears and hearts will see, hear and feel the Holy Spirit talking to them through your stream.

**HOW TO STREAM LIVE VIDEO**

It is easy to reach a global audience instantly. Live video streaming is easy, affordable, and requires less equipment. Anyone can watch from anywhere in the world. The only barriers are language and time zones.

Let us look at three elements of how to stream live video: equipment, hosting and delivery, and workflow.

“Please remember when you live stream you have to have a specific license for that purpose. This is a different license then a performance license that you would have for a service in a sanctuary. You can contact your license provider for additional information.

**1. NECESSARY EQUIPMENT**

Setting up a basic live stream requires a few pieces of equipment: a **camera**, a **microphone**, an **internet connection**, and an **encoder**. An encoder is a software or hardware device that can transcode a video into a format suitable for live streaming. Wirecast, Livestream, or churchstreaming.tv are several options you might consider using for encoding. At the most basic, a smartphone or tablet can fulfill all these requirements in one device.
However, you may want to have more flexibility:

- Multiple stand-alone cameras - two cameras provide for a much more interesting broadcast
- Multiple microphones - lav, shotgun, and other professional mics will provide better audio quality
- High-speed internet connection - a wired/Ethernet connection will provide higher speeds and greater reliability than using WiFi
- Computer with encoding software for mixing, production, and encoding, and/or stand-alone hardware encoder

2. HOSTING AND DELIVERY

Next, you will need a live streaming provider. These are often referred to as “Online Video Platforms;” or OVPs for short.

- Facebook Live Streaming
- Twitter Live Streaming
- YouTube Live Streaming

3. THE HOW - TO

Below is a basic workflow. You can follow this process to set up a live stream in most situations. You may need to modify it for your specific circumstances.

1. On location, set up your cameras and microphones. Use tripods for stability and easy viewing.

2. If you choose to use an encoder, choose a central location for your encoding/mixing to take place. Set up your computer at this location. You will control the broadcast from here. You can also switch between camera angles, initiate graphics and animation, etc.

3. Next, run cables to connect all your equipment. Turn everything on and make sure it is functioning correctly.

Streaming via an encoder lets you do more with your live stream. You can broadcast your services, use external audio/video hardware, use multiple cameras, and more. If you are not using an encoder, skip to step 6.
4. If using an encoder, choose the correct encoder settings for your broadcast. (720p is the standard for YouTube.)

   - Low definition – 360p video: size (measured in pixels): 640 x 360 video bit-rate: 400 Kbps – 1000 Kbps audio bit-rate: 64kbps (mono)
   - 720p HD definition: size: 1280 x 720 video bit-rate: 1.5 – 4 Mbps audio bit-rate: 128 kbps (stereo)
   - 1080p, full HD definition: size: 1920 x 1080 video bit-rate: 3 – 6 Mbps audio bit-rate: 256 Kbps (stereo)
   - 4K, Ultra HD definition: size: 3840 x 2160 video bit-rate: 13 – 34 Mbps audio bit-rate: 256 Kbps (stereo)

5. Connect your encoder to your online video platform via the settings menu.

6. Set up a test live stream, and broadcast it (privately, to yourself). Ensure that video, audio, and streaming settings are working correctly.

   - Your total bandwidth requirements will be the total of all your streams added together, audio and video bit rates.

   - Your internet speed connection has to be at least the double of your total bandwidth requirements. We suggest a stable hardline internet connection with a minimum of 50 mbps of upload speed. (To test your internet speed connection: www.speedcheck.org)

7. Embed your live stream video player on your website, and anywhere else you want to broadcast.

   - Facebook
   - Twitter
   - YouTube

8. You are ready to go! Launch your live stream whenever you are ready.
Audio/Visual (A/V) technology is integral to a church’s ministry and worship experience. It can help set the stage for seekers and believers to encounter God through the teaching, preaching or music that you are providing as you make disciples of Jesus Christ. The experienced A/V staff of GCFA can provide you with tools and training that help you carry out the vision and mission of your church in real and tangible ways.

If you are looking to make an investment in this important part of your church’s infrastructure, we can help with assessments, design, and installation of A/V technology and we can work with most budgets.

Call us toll-free at 1-866-367-4232 or email us at ConnectionalRelations@gcfa.org to see how we can serve your A/V needs.