



Church Broadcasting on a Budget

A guide to compiling a
budget-conscious live streaming
setup for your church service





Church services should be powerful.

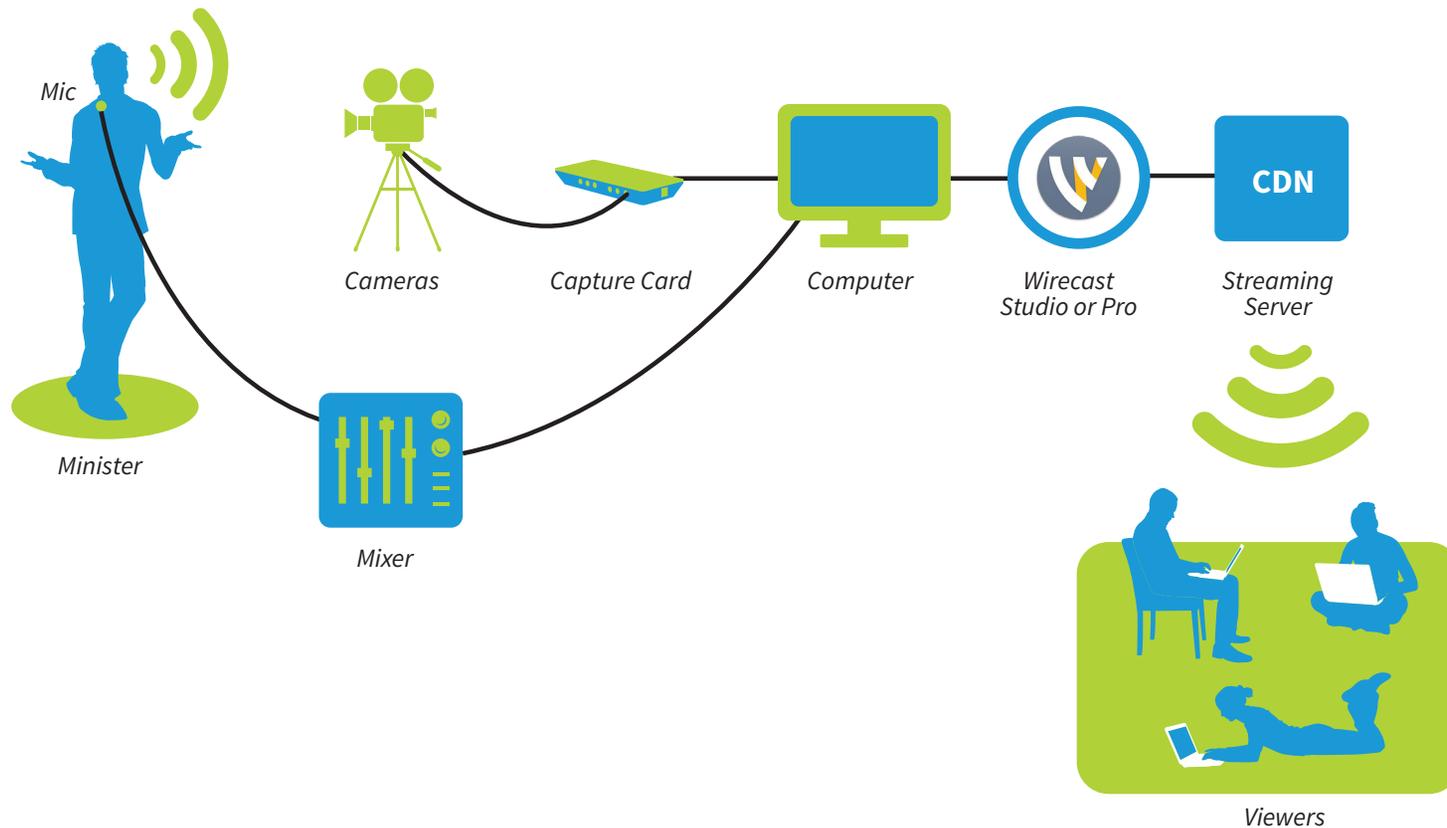
Those attending your service are the lucky few to experience what your church has to offer. Every week your congregation is empowered and uplifted by positive and life changing messages.

Now imagine reaching twice as many people on a weekly basis. What about four times as many, or even more? What about those who may not be able to attend every week? With live streaming and video technology on the rise, and the prolific availability of user-friendly hardware and software, now is the best time to begin broadcasting your services over the Internet.

This e-Book will help you understand the basics, and offer suggestions that will help you to establish a successful, budget-conscious live streaming setup for your church. Learn what tools you need to capture content, repurpose it for live streaming and share it across the state, country and even the world.

Putting it all together.

A solid workflow will help to outline the perfect solution for your church. Follow us through each step as we explore the different opportunities for live broadcasting success. Don't worry, it's not as complicated as it might seem!



Cameras

When choosing a camera there are a few things to keep in mind:

- *How intricate is your service?*
- *Does it require multiple cameras?*
- *Do you have the staff to operate one, or many cameras?*
- *Do you need to zoom in or pan left and right?*
- *Is there a music ministry team that needs to be filmed?*

There are thousands of cameras out there, but staying within budget can be tricky. Here are a few low cost options.



Webcams are the cheapest, lightest and easiest to use, but often lack fine-tuning controls like zoom or focus. They will capture the content in high quality, but you may be limited in how creative your cinematography can be.

- ◀ **Logitech C930e** (\$130)
- ◀ **Microsoft Lifecam Studio** (\$100)

HDMI cameras are fantastic. Although on the more expensive side, they offer much more control and a friendlier user interface. They do, however, require a capture card (an extra couple hundred dollars) which plugs into your computer, allowing HD video to be processed for direct streaming.

**Try to stay within 35 feet of the subject or you may experience a loss in quality.*

▶ **The Canon Vixia HF R400** (\$200) is a solid, budget-conscious HDMI option. On the lower end of the price range, the HF R400 is just the beginning of a great selection from Canon. Be sure to check out other Vixia line cameras if your budget can support them.

▶ **The Blackmagic Design Intensity Pro** (\$190) capture card works well on both PC and Mac and is a great starting point, but by no means is the only option out there.



Microphones and audio mixers

Nothing ruins a great broadcast like bad audio. No matter how fancy your cameras are and how crisp your videos come out, a bad audio track will immediately deter viewers. Although most cameras come with built in mics, an additional external audio source will greatly improve the quality.

Most likely your church already has an audio setup. Microphones and sound mixers are necessary for large spaces, especially if music is integrated into the service, so make sure that you connect your audio directly into your stream.

If you don't already have the necessary equipment, take a look at these microphone recommendations:



- ◀ **Audio Technica ATR2100** (\$60)
With both a USB and XML output, you can run this mic through your sound system or through your computer.

- ▶ **Pyle-Pro PDMIC58** (\$13)
One of the cheapest, highest rated microphones on the market.



- ▼ **Shure PG185 Lapel Mic and Wireless System** (\$299)
Highly rated “invisible” lapel mic. A bit on the pricey side, but unparalleled for pastors on the move!



Computer hardware & software

Having the right tools is essential for a successful live stream. Quality cameras and microphones will need quality support as well, so including powerful hardware and software to your streaming setup will provide the necessary groundwork for a smooth and clear stream on a consistent basis.

An Apple or Windows based computer, whether laptop or desktop, outfitted with streaming software can convert your raw camera footage into compact and streamlined content, ready for immediate upload.



Hardware

A computer to run the software and act as the main broadcast hub could be the most expensive part of setting up a live stream for your church. If you already have a computer that can be spared for a couple hours, you may be in luck. Whether repurposing an existing computer or buying a new one, we recommend the following specs:

- *Mac or PC*
- *Laptop or Desktop*
- *High definition display: 1280x720*
- *i7 Intel Processor*
- *8GB RAM*
- *1GB Video RAM*
- *Price starting around \$600*



Software

Every computer needs software that emulates a live broadcast studio. Wirecast is a user friendly broadcast software that allows for multiple camera switching, adding in text, graphics and slides as well as encoding your stream and exporting it directly to the Internet. Add in the free Desktop Presenter app to include PowerPoint or Keynote presentations along with your live video streams to allow your audience to follow the lyrics of your favorite hymns and psalms. (Starting at \$495; Non-Profits eligible for a 10% discount.)

Where will you send your stream?

You'll also need to figure out where you want to stream your live content. It is possible to set up your own video streaming server and connect it with your website, but in the beginning it may be simpler to send your stream to an existing platform or Content Delivery Network (CDN).



It is worth spending some time researching which service works best for you. You might want to consider your bandwidth needs (the more often and longer your streams, the more bandwidth you will need), potential services the CDN may be able to offer outside of live stream hosting, or if the CDN fits with the philosophy of your church.

Here are just a few options:



[Sermon.net](https://www.sermon.net)

Plans starting at \$15 per month for small audiences and 50Gb of storage



Sunday Streams

[SundayStreams.com](https://www.sundaystreams.com)

Plans starting at \$49 per month for 1000 viewer hours and 250Gb of storage



[Ustream.tv](https://www.ustream.tv)

Plans starting at \$99 per month for 100 viewer hours and unlimited storage

telestream

Cost of setup

Total cost for this setup will be around \$1500–\$3000+ depending on your computer and camera setup. If you already have a computer, it won't take much to get started!

- *Camera: \$100–\$200+*
- *Capture Card: \$190*
- *Microphone: \$10–\$300*
- *Wirecast: \$495*
(Non-Profits eligible for 10% discount = \$445.50)
- *Computer: \$600+*

*All prices current as of February 2014



Helpful tips

Bandwidth can be a stumbling block. Make sure the network you are streaming on has at least a 700Kbps upload speed. If you are streaming in HD, make sure to clock in at 3000Kbps consistency. Check your upload speed at SpeedTest.net (which measures in Mbps, so just multiply by 1000).

Camera tripods can be quite expensive. If you have a few boom mic stands lying around, they can double as a low cost alternative for webcam tripods!

Not everyone wants to be filmed, and it is important to respect these wishes. Make sure you post signs signaling your intent to film proceedings and offer a camera free space for those who are more comfortable out of the spotlight.

Don't hesitate to contact us. We have been in this industry for over 15 years. We know video!

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