

# Technical Resources for Small Churches

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## ISP

Your Internet Service Provider (ISP) will be your physical connection to the internet. Most residential providers will also have business services available for you as well, often at a better speed and offering more customer service for a higher price. If you plan to live-stream your service you need to have speeds in the 20Mbps range or higher otherwise you will have a lot of dropped frames. (Frames are like the old school film slides from your 8mm camera.)

This service will identify who provides internet in your area, as well as displaying their residential rates. <https://www.allconnect.com/internet/in-my-area>

## Network Equipment

Generally your ISP will provide one essential piece of equipment necessary to connect to the internet. If you are going through a cable provider, you will receive a cable modem. If you are working through your local telecom, you will receive a DSL modem. Typically, these modems only provide a single network cable output. Some have built in wireless, but it is best to assume that you will need to provide additional equipment in order to provide wired and/or wireless internet to your facility.

The link below provides a recent review of wireless routers. All of them provide opportunity to connect devices by a network cable or through wireless. Many of them will provide multiple bands of wireless networks. One thing to consider while streaming is that wired networks are usually more stable and fast than wireless networks. Where possible, hard wire your streaming computers and devices. If you must use wireless, limit the number of devices using the wireless network to ensure best speeds.

<https://www.pcmag.com/picks/the-best-wireless-routers>

If you would like to get network access in your sanctuary, but don't have convenient way of getting a network cable to the location you'd like to connect, consider purchasing an Ethernet-over-Power device. These devices take input from your router and pass the network signal through your electrical lines to a paired device in another location. These systems generally only work through a single breaker box between the two endpoints. Some even offer wifi at the endpoint allowing you to place wifi without requiring a second device at the endpoint.

<https://www.techradar.com/news/the-best-powerline-adaptors>

## Host Services

Online Broadcasting, whether live stream, or pre-recorded are generally best presented through a second party service. All of these services require some form of user registration before use.

Video Hosting services:

Service	Link	Notes	Cost
Facebook	<a href="https://www.facebook.com/">https://www.facebook.com/</a>	Requires Organization page with administrators. Allows your organization to advertise inexpensively. External Ads can be annoying.	Free storage Free live-streaming
Youtube	<a href="https://www.youtube.com/">https://www.youtube.com/</a>	Requires Organization page with administrators. External Ads can be annoying.	Free video hosting Free streaming
Sermon.net	<a href="https://sermon.net/">https://sermon.net/</a>	Very targeted to churches. Requires more maintenance unless you are willing to increasingly purchase storage.	Free with paid tiers offering more services and storage.
Review of 7 other sermon hosting services	<a href="https://reachrightstudios.com/7-top-sermon-streaming-companies-churches/">https://reachrightstudios.com/7-top-sermon-streaming-companies-churches/</a>		

## Recording Equipment

As with any other tool out there, there is a vast degree of qualities available in recording equipment. Ideally, video and audio recording will be both of high quality with very little noise and interference. But... Professional quality equipment can be expensive. To narrow down your choices, it is best to really understand what quality of product your wish to produce.

For the sake of this page, we are going to assume that you are looking for an inexpensive system adequate to use for the weekly broadcast of your sermon and the occasional devotion or promotional video. If you are looking to make a video presentation a significant part of your ministry, it is recommended that you purchase professional equipment working through a knowledgeable vendor and anticipate spending upwards of \$50,000 when including live projection on top of studio production.

### Bare Bones

These cameras will simply plug into the USB port on a laptop, allowing you to quickly and easily use a camera to record. The more you spend, the more features you will have at your disposal. Most hosting platforms will allow you to choose where your audio comes from, so experiment with the options at your disposal. In one church, I found a feed from the audio board matched with a cheap webcam provided adequate visual and sound for a simple presentation of the sermon.

<https://www.techradar.com/news/best-cheap-webcams>

## Medium to High End Cameras

If you want more features or higher quality than 720p and 24-30 frames per minute, you need to be ready to spend more than \$500. Is it worth it? It really depends on how much you're planning to use video as an ongoing tool in your ministry and evangelization. You may want to consider what evangelism currently looks like in your context, and whether you can expand it by the creation of videos above and beyond live-streaming your worship services. This link provides a current review of a broad range of cameras, from inexpensive to professional grade cameras. I suspect that the vast majority of churches will not necessarily be well served in purchasing a \$5000 camera, but might be better served in getting 2 cameras totaling \$2000. One could be a PTZ mounted up in the sanctuary with a tripod mounted hand-held style camera in a second location. That camera could also be used for recording other videos to be used in your ministry.

<https://www.epiphan.com/blog/best-cameras-for-live-streaming/>

## Studio Software

You will need to consider how to video your service. Do you want to pre-record or stream live? Do you want to add captioning? Live Comments? Scrolling Information? High Resolution?

There's a lot to consider beyond the budget side of things.

Service	Link	Notes	Cost
OBS (Open Broadcast Software)	<a href="https://obsproject.com/">https://obsproject.com/</a>	OBS is a free broadcast studio software. It is designed to be used either as a feed to live stream or as a recording platform. The software is free and powerful, but will require a little practice to effectively use.	FREE
Audacity		Audio editor only. Very effective at cleaning up the odd noises that creep into your recordings.	Free
Lightworks	<a href="https://www.lwks.com/">https://www.lwks.com/</a>	Video editing software for your desktop computer.	Free for simple version, with paid upgrade levels

## E-Payment Systems

E-Payment or Online Giving is often fraught with concern for churches. Issues of security, privacy and legal obligations for tax reporting all make this an area of concern. Larger churches have different concerns than smaller churches. Younger churches may greatly benefit from online giving, particularly if your congregation automates their tithes (freeing them from remembering to bring checks.) Many congregations experience between 5% and 15% increases in giving by adding E-Payments as an option.

E-giving has a number of fees associated with it. Some systems have an upfront fee to purchase the software. Others have monthly subscription fees. Additionally, each transaction may have fees associated with it. On top of that, some systems charge fees for all e-transactions, others only charge for credit/debit card transactions, but don't charge for ACH transactions. Be sure to look closely at all these things when selecting a system.

The following link is a review of the top 7 e-giving systems.

<https://reachrightstudios.com/7-top-online-giving-companies-churches/>

This link is oriented towards congregations that are smaller than 250 people per week.

<https://www.churchdev.com/4-inexpensive-online-giving-solutions-for-small-and-mid-sized-churches/>