

Roller Derby Broadcast Event Planning Guide

A resource for leagues & events interested in video coverage.

Produced by WFTDA Broadcasting and Quad Media, Inc.

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Foreword

This guide is a collection of concepts and considerations for video recording, live streaming, and broadcasting roller derby games. The intent is to share ideas for your program through our experience over 10 years of derby coverage. We'll review the big picture of how to present the sport, choosing broadcast platforms, promotion, and monetization.

The goal is to answer common questions your league, event, or tournament may have about getting into live streaming to help you decide an approach. We will help you evaluate options and make the best choices for your unique situation. If you're just getting into video coverage or you're looking to improve and expand your audience, this guide is for you. Some of this information is specific to roller derby and some is more generalized and applicable to other event & sport broadcasting.

This is *not* a technical how-to guide for creating & streaming video. WFTDA/Quad has plans to develop a separate technical guide in time.

As the media landscape evolves at a rapid pace, this handbook will be maintained as a living document adjusting to platform and market changes. Current documentation reflects on the 2010-2019 broadcast seasons and discusses current options/developments available in 2020.

Questions and suggestions are always welcome! Please contact broadcast@quadmedia.tv

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How Do I Stream My Event?

This is the question asked most often. There are many considerations and qualifiers involved in answering this question that there is no simple solution or perfect answers.

Planning the live streaming of an event should start along with initial show planning. Streaming tacked on at the end of tournament planning is rarely successful. It's impacted greatly by the venue in which your event will be hosted and the technical infrastructure available in that venue. The best way to ensure streaming as an option, is to hold your event in a place that facilitates streaming.

Once you've determined whether or not you can stream, the options are wide open for streaming solutions and workflows. Budget is important in determining the level of production you'll have from DIY to vendor produced. Costs involved in streaming range from free to tens-of-thousands (USD). Budget is a big determining factor in the answer to "how."

We can't blow a magic whistle to answer this question so be prepared for a number of questions in response!

"Streaming" has become the catch-all term for roller derby video production, but is not the only way to broadcast your games. We'll discuss non-live coverage and some non-internet broadcasting later in the handbook.

Venue Considerations

The two largest factors used to determine live broadcast viability are **internet** and **camera placement**.

Does your venue have an internet connection? We'll detail later some of the specific requirements, but this is the biggest factor for live broadcast. Even in 2020 many event spaces and sporting facilities large enough to host a roller derby game don't have an internet connection installed. Facilities that have internet lines may have a poor connection, reserve the connection only for their offices, or charge a use fee per day, per event, or per bandwidth allotment.

Does the venue have adequate space & infrastructure for broadcast cameras? Specifically we look for an elevated placement option: either an upper balcony or solid floor and high enough ceiling to accommodate a lift or scaffolding. A facility with no off-track space and low ceilings (like a traditional roller rink) is not as broadcast friendly.

After these primary concerns there are a number of other factors to consider:

- Electricity for powering cameras, computers, and broadcast equipment
- Lighting over the track
- Labor contracts & restrictions
- Video recording & broadcast policy/restrictions
- Event A/V setup (announcer audio & PA, scoreboard feed, projection, lights, etc.)
- Internet restrictions (blocked services/sites)
- Setup & tear down time

The Internet

Streaming video requires a different quality of internet than checking email or browsing social media. Just because you “have internet” doesn’t mean your internet connection is adequate to support a live video stream. It’s important to obtain detailed internet information from your venue or internet service provider.

This section is technical, but it’s a guide to asking the right questions about internet capabilities.

Bandwidth is the primary determining factor for stream capability and success. When determining whether your venue has internet, it’s important to also know how much bandwidth the internet connection supports. Specifically you’ll need to determine the **upload bandwidth** of the internet connection because this is how much data you can stream out (video size/quality).

Our minimum suggested bandwidth is 20/20Mbps (20 megabit download, 20 megabit upload) **per track/stream** but this is a worst case scenario. In the world of streaming, more is always better. A 20/20 allows us to push one stream out and monitor audience reception/issues but nothing more.

Some providers will tell you a single number; for instance they have a 30Mbps (30 megabit) connection. This typically only reflects the download speed (that’s what most customers care about). Often the upload speed is only a fraction of download speed. The connection they’re offering may be a 30/5 connection: 30Mbps download and 5Mbps upload. This is not adequate for HD streaming.

Suitable bandwidth situations start at around 50/20. This is enough bandwidth to send a good quality stream, monitor that stream, and have overhead for spikes or other tasks. Ideally we’d like to be in the 100/100 to 1000/1000 (gigabit) range.

Other internet factors include **latency (ping) & jitter**. Even with a high bandwidth connection, it is possible to have a poor streaming condition if the network quality is poor. Streaming suffers when network latency is variable, not just high. For example: A consistent 120ms ping response is better than an inconsistent 40-90ms variable response.

It is recommended you engage an IT or streaming technician to help determine whether your connection is adequate. There are several online resource to test bandwidth at a cursory level including:

- <https://www.speedtest.net/>
- <https://fast.com/> (use the settings to test Upload & Loaded Latency)

Dedicated Bandwidth

In large/public facilities it is important to understand what else is using the internet connection. Your internet connection may test out fine when the venue is empty, but when hundreds of people connect their mobile device to the same network, your stream may crash.

Some venues may be able to provide dedicated bandwidth: a protected network or allotment of bandwidth that is not shared with public wifi, offices, vendors, other events, etc.

It's best to ensure your streaming network will have a consistent bandwidth allotment and quality experience. **Don't share your streaming connection with other services; a social media poster or photographer uploading photos utilizes a significant enough amount of bandwidth to crash a stream!**

“WiFi” is a 4 Letter Word

In almost every circumstance WiFi is not adequate for live streaming. Your attempt to stream will suffer from drops and disconnects constantly as the wireless protocol is not fault tolerant enough to handle a consistent video data stream.

When determining if you have internet access, you should specifically ask for a wired or “hard line” connection. Your streaming setup should be wired directly into the venue network/router/modem to connect to the internet.

Streaming that tests out “OK” over WiFi will likely fail when audience & skaters are in attendance, regardless of whether they are connecting to the WiFi. This is due to Electromagnetic Interference (EMI) and signals from mobile devices.

Don't stream on Wi-Fi.

Internet Costs

When selecting your venue and considering streaming, be sure to understand the costs associated with the internet connection available. Most event spaces charge daily or run-of-show rates for a quality wired connection. This cost may be tied to bandwidth as well so cost may increase.

If the venue charges, you could expect to pay hundreds of dollars (USD) per day for connection fees.

If a facility/venue does not have an existing internet connection, some service providers will install temporary “event” service. A temporary installation usually costs several thousand dollars (USD) per event.

Cellular/4G/LTE wireless service may be available in areas where wired connections are not, but tend to be limited by data caps and high bandwidth costs. In the USA most data plans have a usage cap or throttle bandwidth after excessive use. A single 60 minute HD derby stream can consume an entire month's bandwidth allotment. In other countries/regions this varies widely (at the 2019 Cup in Helsinki, for example, mobile bandwidth was unlimited and unthrottled and we streamed over bonded mobile data all weekend). This option is highly dependent on region and service providers. Research the terms of “unlimited” data plans as many of these will throttle your data rate (bandwidth) after a defined volume of use.

Budget for internet expenses. A cheap venue with expensive internet could sway your venue selection process if streaming is a priority.

Streaming Platforms

A streaming platform is the service provider where you'll send your video to be distributed to viewers. You'll recognize many of the stream platforms as services you're already familiar with: YouTube, Facebook, and Twitch all fit the term platform.

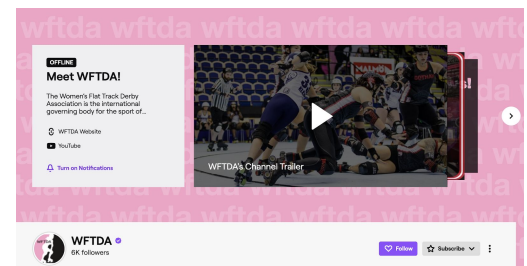
There are many options available to stream your games and each comes with their own benefits and drawbacks. Determining where your stream will appear also impacts how you plan to make the video.

Note: Most platforms operate using the same streaming protocols and are compatible with any hardware & software on the market. In most cases the same equipment can be used for all platforms so a streaming platform may be chosen independently of equipment.

Free

Free platforms are very familiar to most streamers and audiences and provide fantastic features, but they come with some restrictions as well. No free platform is compatible with Pay-Per-View/ticket monetized streaming at this time. Free platforms also have various restrictions around the content you run as it pertains to advertisements and sponsorship (your stream could be shut down/rejected if you promote a sponsor for your event or league). Be sure you fully understand the platform's terms and conditions before you commit to streaming content there. You're not paying for it so the platform will absolutely want something in return: ads, memberships, etc.

Twitch is our current favorite free platform. Low latency, excellent monetization/ revshare, chat/audience interaction features, and a live-first approach to content. Their platform is maturing quickly, introducing new features all the time. It does a wonderful job of categorizing streams so that audiences with similar interests find your content. There's a clear path to achieving affiliate and partner status which improves monetization. The cross promotion features like auto-hosting and raiding make sharing the derby audience between Twitch channels very simple. Every channel is independently owned & operated but channels may "friend" each other to help elevate similar content and create a network of derby channels.

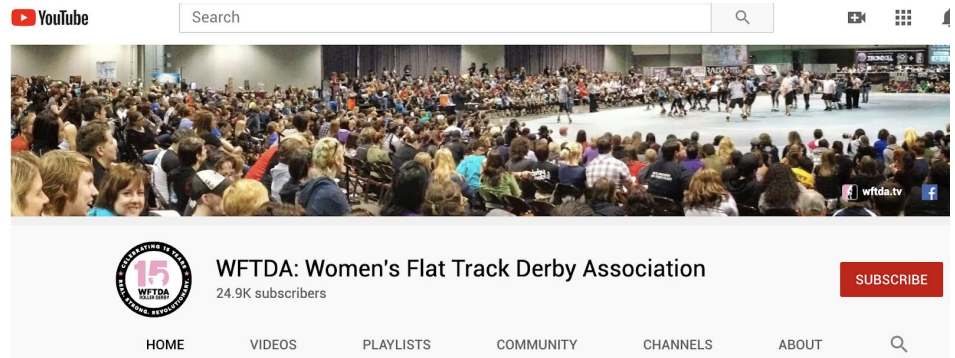


One of the best features of the Twitch platform is the streamer and audience friendly subscription model. Viewers may watch your live stream for free and may optionally pay a \$5/month subscription which lets them avoid ads and gain other benefits on your channel. In addition to audience engagement metrics, the channel gets a direct share of this subscription (50/50 split or better) which results in higher revenue and better income predictability than ads alone.

The WFTDA does not have a formal agreement with Twitch, but was provided a Partner account and an account manager within Twitch. This allows us to help get other channels/derby streamers fast tracked to Partner status to help grow roller derby's appearance in the space.

YouTube is the market leader for Video On Demand (VOD) and has greatly improved their live streaming capabilities recently. Some of the best live features include "DVR" (scrubbing back in the timeline) and high quality transcodes (more latency).

We (WFTDA Broadcast) don't feel that YouTube's live environment is as beneficial to our audience and exposure to new audiences. The YouTube monetization model hasn't caught up with Twitch at this time. YouTube tends to favor established channels that new channels can't compete with. Enabling YouTube channel membership requires 30,000 subscribers¹ whereas Twitch's requirements are based around time spent utilizing the platform². We rely heavily on YouTube as our VOD/archive platform but choose not to stream gameplay to the platform.



Facebook/Periscope/IGTV - These social platforms offer less robust stream capabilities (such as lower resolution & bitrate, limited live time). Streaming hardware and software compatibility is more limited, sometimes even mobile device only. It's important to understand the limitations of these platforms before choosing them.

Unbranded

Paid unbranded or "whitelabel" streaming platforms are professional services which allow you to customize your stream experience as you like. No ad injection or user accounts required. You'll pay up front for a service contract (monthly or annually) and have the freedom to fully tailor the stream. This is the best option for frequent streaming supported by Pay-Per-View or other ticket monetization. Because these services don't require anything from the viewer, they may be used for free streaming or paywalled streaming; maximum flexibility.

Prices range from \$150-\$1000 per month and bandwidth use will increase the cost (average \$.08/GB).

The WFTDA has experience with several platforms, most recently Livestream.com/Vimeo and Brightcove. There are many professional services in this market and we'd be happy to help you choose one if whitelabel suits your needs.

Whitelabel video platforms do not generally include audience management or ticket sales capabilities; these features would be provided by a 3rd party service which may further impact costs & revenue. Cleeng is an industry leader streaming Pay-Per-View sales & audience management and has been WFTDA's choice for several seasons.

PPV/Revshare

These services are designed to host your event and accept payment from viewers; they handle the financial transaction and the stream all in one. They typically have a low barrier of entry but take a significant cut of the ticket sale (often percentage based). It's a good all-in-one solution that takes the hassle out of the process required to link two separate services (whitelabel platform & pay-per-view vendor) for your streaming event.

¹ "Channel memberships eligibility, policies, & guidelines" <https://support.google.com/youtube/answer/7636690?hl=en>. Accessed 11 Jun. 2020.

² "Joining the Affiliate Program - Twitch." <https://help.twitch.tv/s/article/joining-the-affiliate-program>. Accessed 16 Jul. 2020.

WFTDA Broadcast has not partnered with a Revshare streaming service, but are familiar with several providers and happy to help you find & select a vendor.

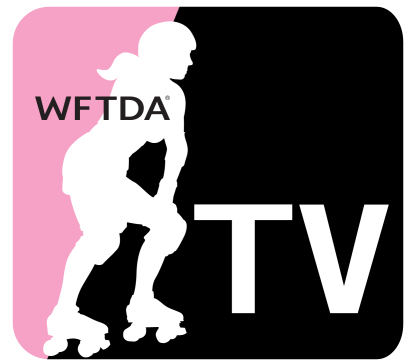
Web Conferencing

Conferencing platforms include Zoom, Webex, and any meeting-style service. We do not recommend or support web conferencing platforms for gameplay broadcasting. Web conferencing generally operates on completely different protocols than video streaming. There's much less control over quality and viewer experience.

While we embrace these platforms for social, private, and organizational events, they are not suitable for live sport broadcasting. When planning to stream your games please consider only video broadcast streaming platforms and not web conferencing platforms.

“On WFTDA.tv”

“Can we stream our game on WFTDA.tv?” is another question we field often. WFTDA.tv is a website; all of our streaming video happens through a [streaming platform](#) that fits in one of the previously mentioned categories. WFTDA.tv can absolutely link to or embed your stream, but your stream will have to be on a platform first. Whether that's a platform that WFTDA.tv operates or your own platform is up to you.



Can you use the WFTDA streaming platform for your live event (instead of setting up your own)? For your PPV or free stream? Maybe! We're happy to partner with any derby event to help you get streaming. Let's talk about what best fits your event, audience, and revenue goals.

Non-Live Streaming Alternatives

So your venue didn't have internet or you didn't have the equipment to stream? No problem! Editing and uploading has been a viable option for getting your content online for a long time.

Free & Social Platforms

Recently platforms (including Twitch³, YouTube⁴, and Facebook⁵) have embraced “premiers,” a method for releasing a video for the first time by playing out to everyone in real time. This is a great option for previously recorded gameplay to be shown to an audience who experience it at the same time, at a time you choose. Additionally you may monetize this VOD content through subscriptions and ad revenue (on some platforms, see links in footnotes).

³ "Video On Demand - Twitch.tv Help." https://help.twitch.tv/s/article/video-on-demand?language=en_US. Accessed 16 Jun. 2020.

⁴ "Premieres - YouTube Help - Google Support." <https://support.google.com/youtube/answer/9080341?hl=en>. Accessed 16 Jun. 2020.

⁵ "Schedule a Premiere | Facebook Business Help Center." <https://www.facebook.com/business/help/580544922399103>. Accessed 16 Jun. 2020.

Paid VOD

Subscription first platforms such as Vimeo and Patreon allow you to set a purchase price for access to your games on demand. Generally we see less revenue for VOD gameplay but this may be a viable option if your fans can only access recorded content (no live stream, no in person ticket sales).

How Do I Produce Video For My Event?

In most cases your choice of video production method may be made independently of your streaming platform. Any video production workflow can end output to a live video stream as long the previously discussed internet and platform requirements are met.

This section will only discuss approaches to video production in a broad sense and will not provide specific workflows or equipment recommendations.

Vendors

In our experience the fastest way to reach a streaming solution is to hire an experienced video production vendor on contract to cover your event. Most sports video production companies are familiar with the workflows and have the equipment capable of broadcasting roller derby; they don't specialize on a particular sport but generalize enough to cover many sports as seasons change. Large production companies often operate regionally providing services in several cities/states. In the USA it's common to find a small, local video production company or crew with experience covering high school to collegiate level football/basketball/hockey/baseball with equipment and experience that translates well to derby. Another source of vendors may be your local community access or educational institution video production services.

Cost is a significant factor with this approach. Most vendors charge an event or day rate for both labor and equipment. Per game coverage starts in the hundreds and can reach thousands per day for longer engagements.

Some video production companies also wish to retain some ownership to the content they create through event share (ticket/PPV sales), distribution rights (copyright/media ownership), or VOD sales. Be sure to understand the contract agreement with your vendor.

REMI - Remote Integration

A recent development in live event broadcasting is Remote Integration or REMI for short. REMI has become especially popular in sports as it allows a remote studio to produce and broadcast games with fewer people and equipment on location. This can translate to lower per-show production costs and/or a higher quality broadcast than an on-site vendor may be capable of producing due to location and physical limitations.

WFTDA utilized REMI in all of the 2019 playoff broadcasts and we're considering REMI-capable solutions for future events.

Derby Community/Enthusiast Vendors

Outside the professional services realm, there are enthusiasts who produce streaming video as a hobby or “side gig.” We absolutely owe derby’s long broadcast history to smaller outfits who produce at low to no cost, often at personal expense for the love of the sport.

We’re happy to work with any level of vendor and help share our experience & tools to get an enthusiast the support they need to make your broadcast a success.

In-House

Derby has a rich DIY history and for some leagues in-house broadcast production can be part of that. Providing your own video production takes the most investment & lead time with learning, development, technical setup and maintenance but is a great solution for continuous, sustainable broadcasting in the long term.

If your derby league has a strong volunteer base it should be able to train & maintain a broadcast crew; the jobs are similar to that of scorekeepers & NSO’s in the technical elements and detailed work. While the stream engineering and management is very complicated, operating a camera or video switcher is simple for any derby player/official/fan to pick up and enjoy.

Note: This guide does not provide specific equipment recommendations or technical design. Specific equipment information is being developed for a separate WFTDA Broadcast guide. We’re including information about equipment here as it pertains to budgeting for your event or season.

Rentals

Video equipment rental shops are available in many cities and online rental shops can deliver anywhere in the world. All of the equipment you’d need for a broadcast may be rented: camera, tripod, audio kit, video switcher, and encoder are common rental inventory.

The typical rate for equipment rental in the video industry is 10% of value per event. This keeps your per-game (or tournament) cost low, but if you’re planning an entire season of coverage the expense may be better invested in purchases.

Two benefits of renting equipment:

- Try-before-you-buy. If you’re just getting started with a DIY/volunteer operated setup it’s a good idea to test our equipment and setups prior to committing to purchase. Rental shops have a wide variety of equipment which may be tested in your operating environment and exchanged.
- No maintenance or upgrade costs. Video and streaming technology evolves very rapidly and can suffer damage/malfunction over time in a rough environment like sports broadcasting.

For much of our 2018 & 2019 broadcast coverage equipment was provided by [Lensrentals](#) in the United States. This is an example of a full service video rental shop with all the equipment you’ll need; we do not endorse or partner with this vendor and recommend you seek an option right for you.

Owned Equipment

Ownership of equipment may be an option for some leagues but it comes with a mixed bag of benefits and drawbacks.

For leagues with plans to broadcast every game, scrimmage, and extra event, the investment in equipment is a good decision. Less setup & configuration time, better familiarity with the equipment for your crew, and no per-stream operating cost.

Broadcast equipment is both expensive and delicate so maintenance, storage, and repair/replacement costs should be factored. As the video industry tends to keep up with computing technology, much of the consumer, prosumer, and intro level professional equipment has an obsolescence life cycle of only a few years.

Cost Estimates/How to Budget

Estimates are highly variable depending on your particular event (single game, multi game, tournament) and venue but here are some numbers and considerations to guide your planning.

Rate Card

This is a basic expense index for 2020 broadcast operations. All equipment rates are based on rental and labor is provided by a vendor. All prices in USD. Note equipment & labor necessary for your broadcast varies depending on your broadcast goals.

Service	Rate	Per
Streaming Platform (PPV/whitelabel only)		
Base Platform Fee	\$350	event
Live Bandwidth*	\$100	day
On Demand/Archive*	\$10	game/month
Video Production & Network Equipment		
1 Camera Switcher (4 input)	\$150	event
Multi-Cam Switcher (8-12 input)	\$300	event
Instant Replay	\$350	event
Encoder & Networking	\$100	event
Camera kit (per camera)	\$300	event
Audio & Talent		
2 talent broadcast station	\$150	event
Labor		
Engineer & Technical Director	\$600	day
Instant Replay Operator	\$600	day
REMI Technical Director	\$450	day
REMI on site engineer & operator	\$450	day
Camera Operator (local)	\$300	day
Meals	\$40	person/day

**price dependent on usage*

Can I Make Revenue From My Event Stream?

No matter what approach you take to streaming, there is a cost associated with adding this service to your derby events. In order to offset the cost of streaming and potentially generate income from your stream you'll want to consider a monetization model. The best approach is to consider each of these factors in your monetization goals.

Pay-Per-View

PPV has the highest likelihood of covering costs and generating revenue because it allows you to set your price and control access to the content. However it also has the highest cost of entry for streaming as it relies on a whitelabel streaming platform and audience sales service; both introduce their own fees.

PPV is best suited for events with a known audience and proven broadcast history. Best as a "next step" for leagues & events once they've successfully streamed games.

Subscriptions

Social oriented platforms such as Twitch and YouTube both allow audiences to subscribe to the streaming channel. This is a voluntary contribution from fans and recurring buy in. Subscription is highly dependent on continuing to make content and serving the fans, making their experience worthwhile. Monetarily this results in less per-game income, but a more sustainable income over time as long as you're producing content.

Ad Support

Free platforms are supported by ads by default and the streamer sees very little from this. Hundreds of viewers translates to pennies per ad run.

Running your own ads from league sponsors works for PPV/whitelabel streams but is against the streaming policies of ad-supported platforms (Twitch Endorsements/Testimonials guide⁶, YouTube endorsements⁷, Facebook branded content⁸).

Streaming vs Ticket Sales

A common concern is that if a video is provided, fewer in-venue tickets will be sold for the event. This is of course a concern your league should consider.

An opposite consideration is that streaming allows your league to reach viewers/potential fans that wouldn't otherwise be able to attend your event or be exposed to roller derby. The WFTDA's public

⁶ "Terms of Service - Twitch.tv." 29 May. 2020, <https://www.twitch.tv/p/legal/terms-of-service/>.

⁷ "Paid product placements and endorsements - YouTube Help." 5 Dec. 2018, <https://support.google.com/youtube/answer/154235?hl=en>.

⁸ "About Branded Content for Brands, Advertisers, Marketers or" <https://www.facebook.com/business/help/788160621327601>. Accessed 1 Jul. 2020.

streams on Twitch and free archives on YouTube generate thousands of views every month to provide exposure to the sport & individual teams. Roller derby records and live streams and a great introduction to the sport and generate fans & interest constantly.

Generally in-venue ticket revenue will outpace streaming ticket revenue for most events regardless of streaming method, but both may be part of your event's revenue model.

What Are The Legal & Content Considerations?

Laws around recording & copyright vary widely in every country. It's important to understand your local laws around recording, right to privacy, and media copyright ownership. These are some considerations for your event but not legal guidance.

Players & Audience Right to Privacy

Many venues and events maintain an individual's right to privacy and video recording/streaming may be in violation of their rights. Depending on your location a posted notification that the event is recorded may be enough. Some events (The WFTDA included) will require participants to sign a legal waiver of right to privacy and use of likeness in a broadcast.

Music/Recordings

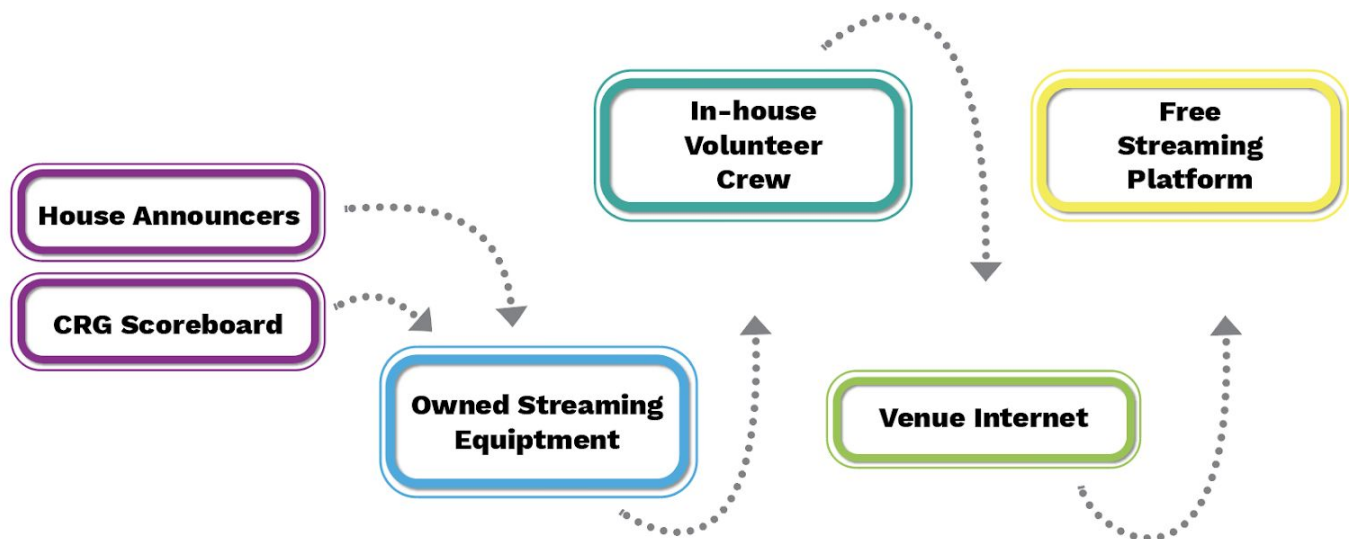
Generally recorded music and other media should not be used in your stream as it can lead to copyright take-downs and demonetization. Be aware of the content you're putting on your stream and remove any recorded music prior to publishing VOD archives.

- [YouTube Restrictions on live streaming](#)
- [Twitch DMCA Notification Guidelines](#)

Appendix A: Sample Workflows & Budgets

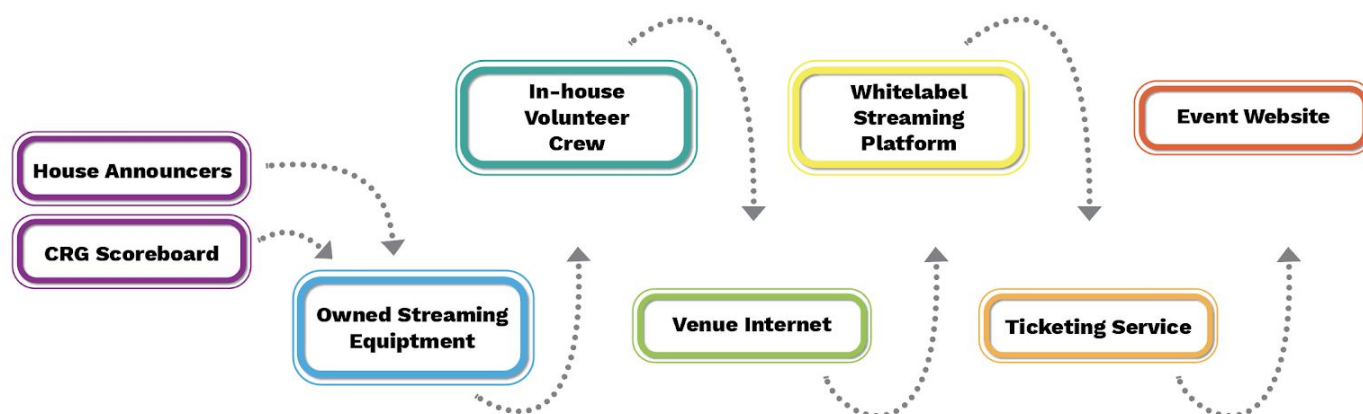
ON SITE PRODUCTION

On site DIY streaming production, single game, free:



Service	Rate	Per
Streaming Platform		
Live & VOD Platform Fee	\$0	game
Video Production & Network Equipment		
Owned	N/A	game
Audio & Talent		
Owned	N/A	game
Labor		
Volunteer	\$0	game
Internet		
Venue included	\$0	game
Total:	\$0	game

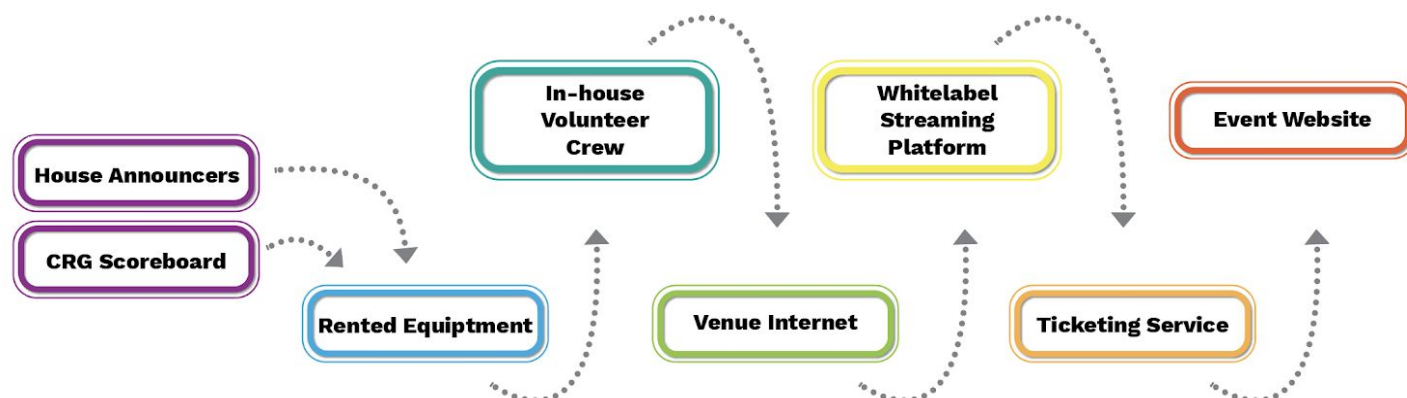
On site DIY streaming production, single game, PPV via whitelabel & ticketing services:



Service	Rate	Per
Streaming Platform		
Base Platform Fee	\$350	event
Live Bandwidth*	\$50	game
On Demand/Archive*	\$10	month
Video Production & Network Equipment		
Owned	N/A	game
Audio & Talent		
Owned	N/A	game
Labor		
Volunteer	\$0	game
Internet		
Venue included	\$0	game
Expense Total:	\$410	game

*Revenue for this model is based on ticket price, less ticketing service fee (\$2.50/ticket on Cleeng).

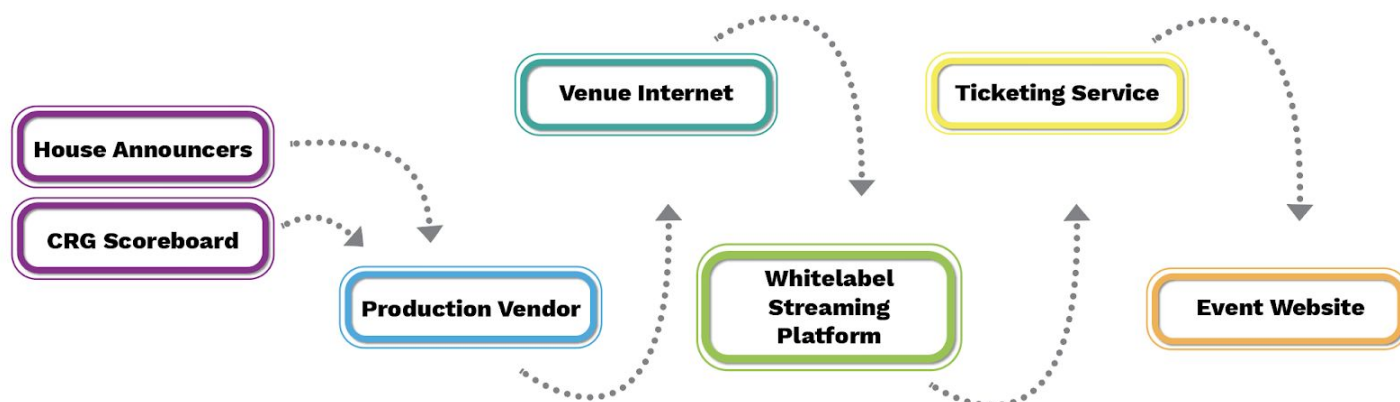
On site rented equipment, volunteer crew, single game, PPV via whitelabel & ticketing services:



Service	Rate	Per
Streaming Platform		
Base Platform Fee	\$350	event
Live Bandwidth*	\$50	game
On Demand/Archive*	\$10	month
Video Production & Network Equipment		
1 Camera Switcher (4 input)	\$150	event
Camera kit (per camera)	\$300	event
Encoder & Networking	\$100	event
Audio & Talent		
2 talent broadcast station	\$150	event
Labor		
Volunteer	\$0	game
Internet		
Venue included	\$0	game
Expense Total:	\$1,110	game

*Revenue for this model is based on ticket price, less ticketing service fee (\$2.50/ticket on Cleeng).

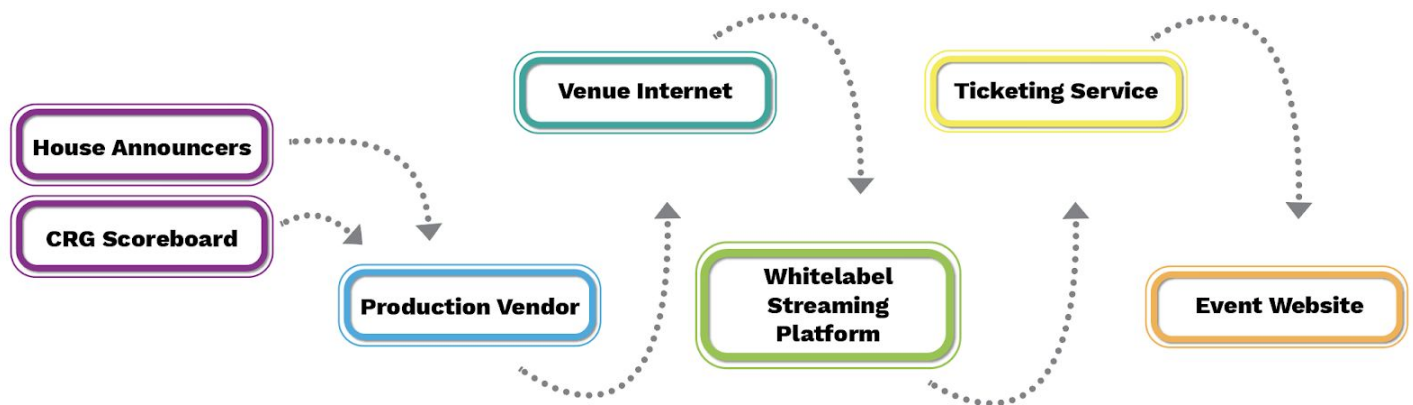
On site vendor produced, single game, PPV via whitelabel & ticketing services:



Service	Rate	Per
Streaming Platform		
Base Platform Fee	\$350	event
Live Bandwidth*	\$50	game
On Demand/Archive*	\$10	month
Video Production & Network Equipment		
1 Camera Switcher (4 input)	\$150	event
Camera kit (per camera)	\$300	event
Encoder & Networking	\$100	event
Audio & Talent		
2 talent broadcast station	\$150	event
Labor		
Technical Director	\$600	game
Camera Operator (per camera)	\$300	game
Internet		
Venue included	\$0	game
Expense Total:	\$2,010	game

*Revenue for this model is based on ticket price, less ticketing service fee (\$2.50/ticket on Cleeng).

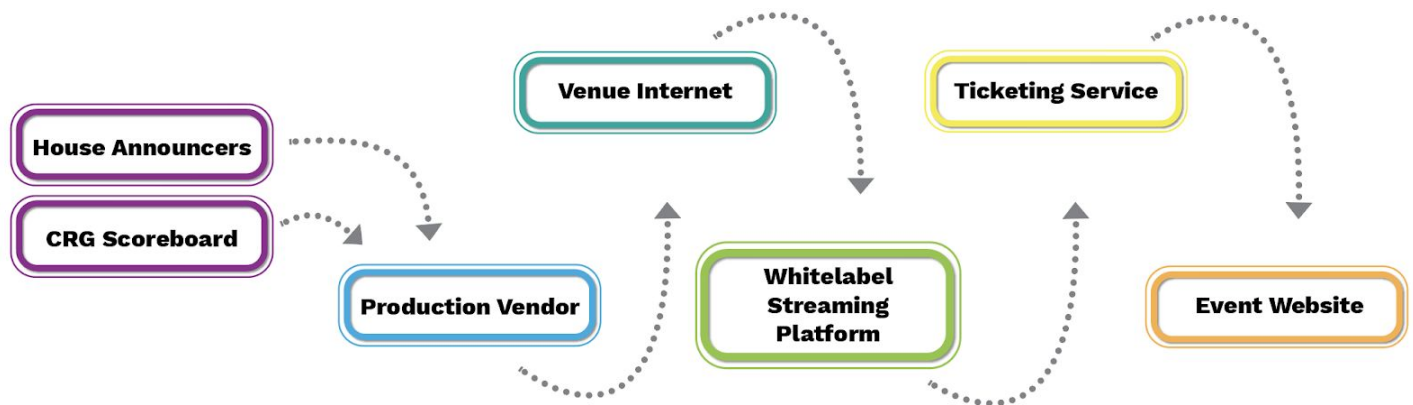
On site vendor produced, single game, PPV via whitelabel & ticketing services. 3 camera & instant replay:



Service	Rate	Per
Streaming Platform		
Base Platform Fee	\$350	event
Live Bandwidth*	\$50	game
On Demand/Archive*	\$10	month
Video Production & Network Equipment		
1 Camera Switcher (8-12 input)	\$300	event
Instant Replay	350	event
3 x Camera kit (per camera)	\$900	event
Encoder & Networking	\$100	event
Audio & Talent		
2 talent broadcast station	\$150	event
Labor		
Technical Director	\$600	event
Instant Replay Operator	\$600	event
3 x Camera Operator (per camera)	\$900	event
Internet		
Venue included	\$0	game
Expense Total:	\$4,310	game

*Revenue for this model is based on ticket price, less ticketing service fee (\$2.50/ticket on Cleeng).

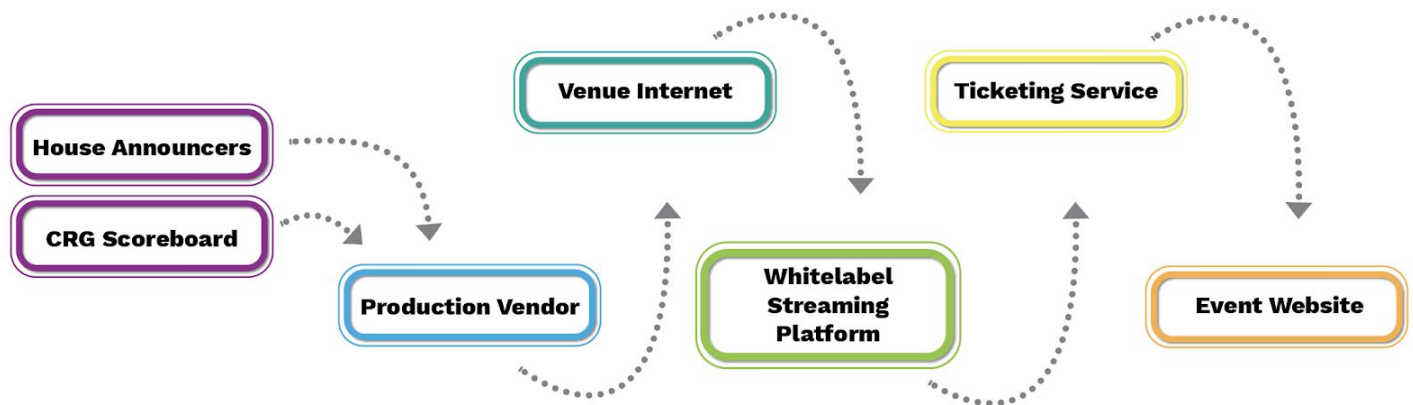
On site vendor produced, 3 game (6hr/same day), PPV via whitelabel & ticketing services. 3 camera & instant replay:



Service	Rate	Per
Streaming Platform		
Base Platform Fee	\$350	event
Live Bandwidth*	\$150	event
On Demand/Archive*	\$10	month
Video Production & Network Equipment		
1 Camera Switcher (8-12 input)	\$300	event
Instant Replay	\$350	event
3 x Camera kit (per camera)	\$900	event
Encoder & Networking	\$100	event
Audio & Talent		
2 talent broadcast station	\$150	event
Labor		
Technical Director	\$600	event
Instant Replay Operator	\$600	event
3 x Camera Operator (per camera)	\$900	event
Internet		
Venue included	\$0	game
Expense Total:	\$4410	event
Per game expense:	\$1470	game

*Revenue for this model is based on ticket price, less ticketing service fee (\$2.50/ticket on Cleeng).

On site vendor produced, 3 day tournament, 18 game (6 games/day, 12hr/day), PPV via whitelabel & ticketing services. 3 camera & instant replay:

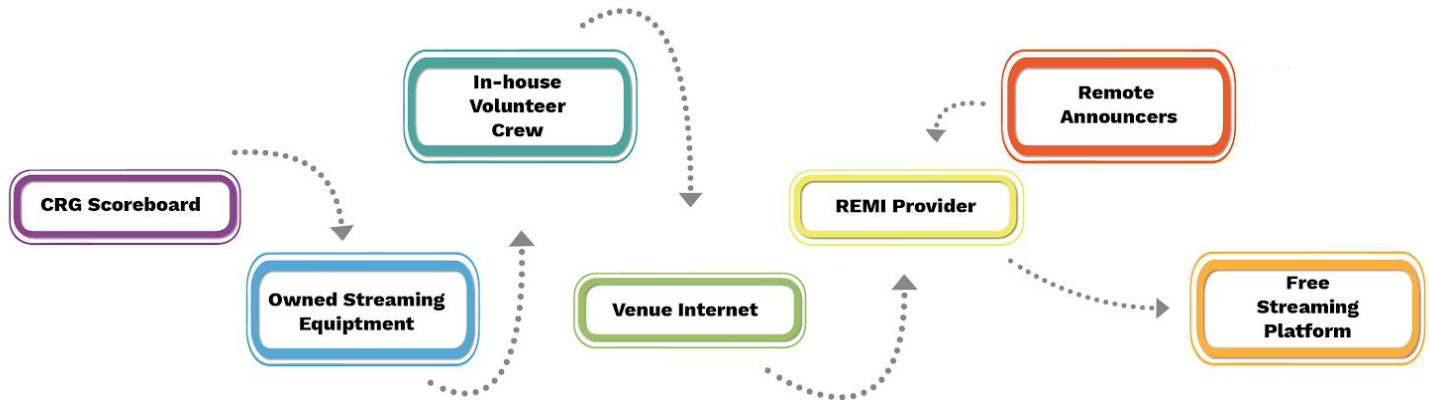


Service	Rate	Per
Streaming Platform		
Base Platform Fee	\$350	event
Live Bandwidth*	\$200	event
On Demand/Archive*	\$30	month
Video Production & Network Equipment		
1 Camera Switcher (8-12 input)	\$300	event
Instant Replay	\$350	event
3 x Camera kit (per camera)	\$900	event
Encoder & Networking	\$100	event
Audio & Talent		
2 talent broadcast station	\$150	event
Labor		
2x Technical Director (8 @ \$600)	\$4800	day
Instant Replay Operator (4 @ \$600)	\$2400	day
3 x Camera Operator (4 @ \$900)	\$3600	day
6 hours overtime	\$17400	event
Internet		
Venue included	\$0	game
Expense Total:	\$14920	event
Per game expense:	\$829	game

*Revenue for this model is based on ticket price, less ticketing service fee (\$2.50/ticket on Cleeng).

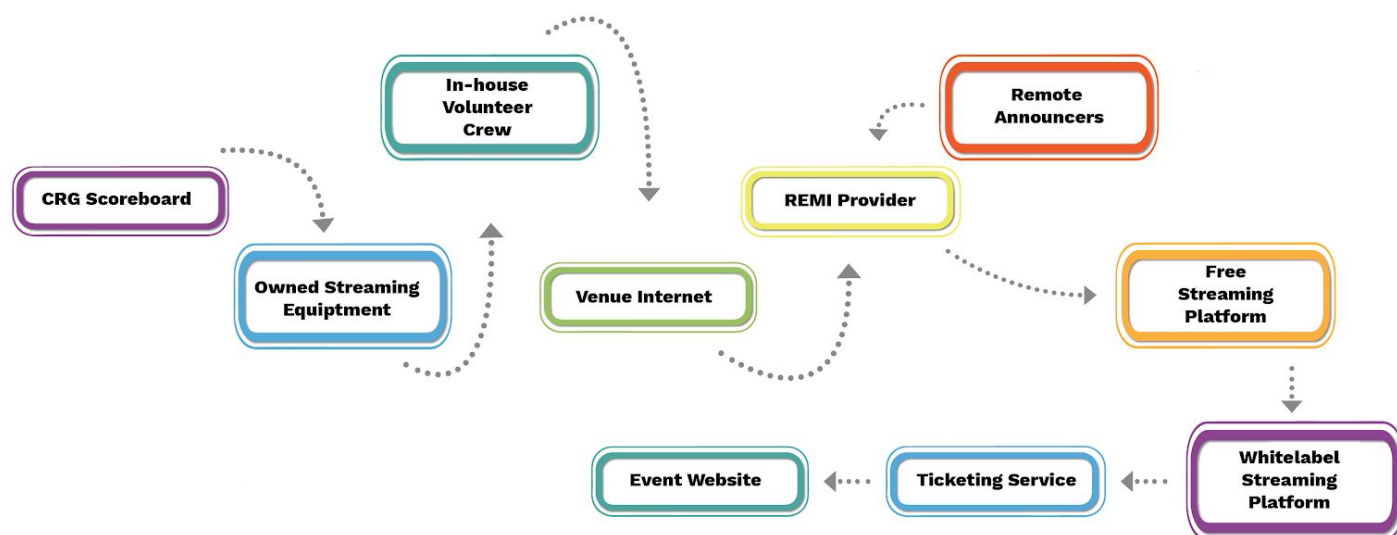
REMI PRODUCTION

DIY video with REMI production support, single game, free:



Service	Rate	Per
Streaming Platform		
Live & VOD Platform Fee	\$0	game
Video Production & Network Equipment		
Owned	N/A	game
Audio & Talent		
Owned	N/A	game
Labor		
Volunteer Camera Operator	\$0	game
REMI Technical Director	\$450	game
Internet		
Venue included	\$0	game
Total:	\$450	game

DIY video with REMI production support, single game, PPV via whitelabel & ticketing services:



Service	Rate	Per
Streaming Platform		
Base Platform Fee	\$350	event
Live Bandwidth*	\$50	game
On Demand/Archive*	\$10	month
Video Production & Network Equipment		
Owned	N/A	game
Audio & Talent		
Owned	N/A	game
Labor		
Volunteer	\$0	game
REMI Technical Director	\$450	game
Internet		
Venue included	\$0	game
Expense Total:	\$860	game

*Revenue for this model is based on ticket price, less ticketing service fee (\$2.50/ticket on Cleeng).

