The Ultimate Guide to Livestreaming Events
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The Power of Live Video in Event Marketing

Enterprise conferences are growing faster than almost any other industry. The biggest of them all is Dreamforce – the largest software conference on the planet. In 2015, Salesforce clocked 160,000 registered attendees, a dream come true (pun intended) for any event marketer. While that number is impressive, more interesting is that nearly 6.1M people watched Dreamforce live, and another 6M watched the archived video on demand. While it’s amazing to have an attendee force equivalent to 16% of the population of San Francisco, even stadiums have seating limitations. Using the power of live video, Dreamforce was able to reach 75X the people who attended in-person. That’s 75X more people who could learn more about their brand, features, and message – all through a simple livestream. Dreamforce 2016 viewers watched 81,696,728 minutes of video – a total 155 years of Dreamforce video content.

Every day, Livestream helps people and organizations like Dreamforce get their ideas and events in front of audiences around the world. We’ve always believed in the power of live video. Not just for events, but also the sharing of information and exchange of ideas. There is something special about a live moment – it captures the imagination and brings people together.
In 2015, more than 374M people watched a Livestream event. Livestreaming video has gone from a marketing tactic to a way of life. We have the technology to share live video with anyone at anytime. But we’re also living in a time of unprecedented access to content. For brands to cut through the noise – be it through events or video content – the quality must be superb.

Audiences Expect Live Content

By 2019, there will be over 28M cord cutters – homes without paid TV services – in the United States alone. As audiences become more accustomed to watching video content from a mobile device or computer, they will expect the televised awards shows, concerts, and sports events that have cultural significance in their life to be available live and on-demand as well. Through live video, consumers can connect with brands in a more authentic, immediate, and spontaneous way. Brands and organizations large and small want to reach customers and employees around the world, face-to-face, in real time to share their most exciting moments.

Many brands and publishers are already experimenting with livestreaming and video in a variety of ways outside of traditional events and conferences:

- Behind-the-scenes video for loyal fans and audiences.
- Q&A’s and direct conversations with customers or social audiences.
- Special product announcements or launches.
- Influencer partnerships where a brand features a guest speaker on the stream.

“It captures a sense of community that brands and businesses are desperate to develop,” Ari Zoldan, CEO of Quantum Media, told Open Forum. “They have Instagram, they have Twitter, they might even have private social media
networks to foster conversations between customers. But there’s nothing quite like having the customer next to you, so you can show and pitch them on something appealing. Livestreaming allows you to bring the customer to your home turf.”

Every Wednesday, Experian hosts a #CreditChat livestream on Twitter and YouTube to connect with their social audience and share information about building credit and eliminating debt. “At Experian we have an initiative we call insights to action, and #CreditChat really embodies that initiative,” said Rod Griffin, Director of Public Education at Experian in a video on the series.

“There’s nothing quite like having the customer next to you, so you can show and pitch them on something appealing. Livestreaming allows you to bring the customer to your home turf.”

“It helps us provide insights to people that help them act, take action, become more financially capable. #CreditChat lets us connect directly with people on an individual level and answer the questions they have specific to their situation. It’s just a wonderful way to connect and to help people understand more about personal finance and what we do as a company.”

The company has livestreamed over 100 #CreditChats that reach millions of accounts.

Facebook has recognized the importance of live video to both its users and its customers, the brands that connect with their audience through advertising. After launching Facebook Live, the company announced that it is prioritizing livestreams in their feed algorithm. This means brands and organizations hungry for more eyes can guarantee priority through live video content. They also shared that their users spend 3X more time and comment 10X more when video is live.

Southwest Airlines recently livestreamed from their operation control center to reassure customers during a spate of bad weather that was delaying flights. According to the Financial Times, over 100,000 people watched the Southwest stream on Facebook Live. Brooks Thomas, who is part of the Southwest social team, told the Financial Times that the airline considers live video “a pretty big juggernaut.”

Big brands like Adidas, Taco Bell, DKNY and GE are also using livestreaming to share lots of candid moments with their audiences, from press conferences to contract signings with celebs and behind-the-scenes moments.

“The ‘high stakes’ nature of live content puts more pressure on brands and agencies to have their strategy and process in lock step, which is always good,” John Sampogna, Co-Founder and Managing Director at Wondersauce told Digiday. “We’re also following a ‘when it makes sense’ strategy and not forcing it into weekly or monthly content calendars, but rather using it when both the brand and agency are genuinely excited.”
Jim Toben, President of Ignite Social Media, said in a recent webinar that he sees livestreaming as “trust content” which allows brands quality, face-to-face time with their audience. “You could be spending 20, 30 or 60 minutes in one sitting with an audience member. That builds trust. That’s huge awareness generation,” Toben said. “I think livestreaming is a great opportunity for that...It allows us to tap into that FOMO (fear of missing out) that people have about attending our conferences. If people are watching a live event (online), it actually makes them want to attend more because people love the value of a physical event.”

Juntae DeLane of Digital DeLane agrees: “Brand marketers will leverage this behavior and activate audiences via livestreaming technologies. Live, branded broadcast will be the best conversion tool in 2016,” he said in an interview with CMI.

Peters also believes livestreaming will present a tremendous shift in lead generation tactics for brands: “Using digital platforms, particularly when sign-in is required and when there’s a user profile behind the request, you can pull together analytics and data about the viewers that was never available before. That data is incredibly valuable and that will motivate more events to look at livestreaming.”

At Livestream, large-scale event streams have increased over 1300% in the last four years. We know this explosive growth is more than a trend. In 2016, livestreaming goes from being an asset to a critical and indispensable part of any communication and go-to-market strategy. Brands will livestream a diverse set of media formats from 360° video to fully narrative live events. In an age of authenticity, viewers expect live video experiences. As we’re seeing, “live” can apply to a variety of ideas that we’d never previously considered.

Why 2016 Matters

Livestream CEO Jesse Hertzberg recently wrote: “There are four elements that have converged to make 2016 the year of live video and events: content, infrastructure, audience, and production value.”

In Streaming Media’s “The State of Live Video 2016,” Mark Peters, principal consultant for IDB Consulting, said: “We’re seeing pretty reliable delivery of high-quality video...that is building confidence to seek out live content on digital platforms. I think that, coupled with some niche and specialty content available exclusively on digital, is really making live come of age this year.”

We created this guide because we know that while events and livestreaming may be essential to your marketing strategy, that doesn’t mean they’re easy. Nearly everything about event planning and live video is difficult – especially if you’re doing it for the first time. We want to provide you with the tools and information you need to make your event and livestream a success.
In this guide you will learn:

- Statistics and data on how the live event and video industry is growing and driving ROI.
- Best practices and tips from professional large-scale event planners.
- Step-by-step instructions and tools for going live from our production team.
- How three organizations used Livestream to expand the reach of their live event audience and increase ROI.
- All the technical terminology and lingo you need to understand live video production.
Live Video + Video Marketing Growth

Video and livestreams have rocketed to the top of preferred digital and mobile content. In this infographic we’ve compiled statistics about why livestreaming video is a crucial part of any modern marketing or content mix.

Online Video On Demand Is Growing

- **EVERY WEEK:** 78% of people watch videos online
- **EVERY DAY:** 55% of people watch videos online

**COACHELLA**
- Livestreamed both weekends
- 3 BIG STAGES
- 60 + ACTS

**FACEBOOK**
- EVERY DAY
- 4 BILLION VIDEO VIEWS
- 55% of mobile data traffic is from video

Brian Solis
Altimeter Group

“Livestreaming (video) continues to bring niche moments to life, interrupting streams everywhere, making conversations on demand a form of engagement and entertainment.”
Livestreaming is about to become even more ubiquitous... Mainstream social apps like Facebook are adopting their own livestreaming features, and users are beginning to demand more live, ‘in the moment’ content. This puts a heavier burden on content marketers, demanding fewer preconceived, scheduled-in-advance pieces of content and more present-focused video streaming opportunities.

Video + Events Are An Integral Part Of Marketing Strategy

52% of marketers believe that video marketing is effective for brand awareness, lead generation, and online engagement.

77% of B2B marketers use in-person events as part of their content marketing strategies.

96% of B2B companies are planning to use video in their content marketing over the next year.

The US Bureau of Labor Statistics predicts that the event industry will grow — by — 44% from 2010 to 2020, exceeding most growth predictions for other industries.

4.1% of annual revenue by 2018

Brands increased their event and experiential marketing budgets by 6.1% in 2015

At Livestream, enterprise video streams have increased over 1300% in 4 years

Forbes
Video is Effective for ROI

<table>
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<tr>
<th>Ticket sales</th>
<th>The best ROI</th>
<th>Positive impact</th>
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<tr>
<td>30%</td>
<td>52%</td>
<td>73%</td>
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- 30% of people who watch a livestream of an event will attend that same event the following year. (Digitell)
- 52% of marketers worldwide name video as the type of content with the best ROI. (HubSpot)
- 73% of B2B marketing professionals say that video has positively impacted marketing results. (Reel SEO)

- 74% of survey respondents said that video content produces better conversions than any other form of content. (Vidyard, 2015)
- Video viewers are 1.7x more likely to buy. (Invodo)
- Marketers who use video grow revenue 49% faster than non-video users. (Aberdeen via Vidyard, 2015)

“In 2016, content marketers need to test visual and video platforms, not to mention livestreaming, as new means to offer content that is engaging and will entice users beyond the classic text-based blog.”
I think it takes more than three seconds to build your brand, and consumers are willing to spend the time if your content is compelling, relevant, and valuable.

62% of consumers are more likely to have a negative perception of a brand with a low-quality video experience.

23% of people who have been presented with a poor-quality video experience would hesitate to purchase from the brand.

Enjoyment of video increases purchase intent by 97% and brand association by 139%.

“I think it takes more than three seconds to build your brand, and consumers are willing to spend the time if your content is compelling, relevant, and valuable.”
Event Planning + Marketing Best Practices from the Experts

If your organization is just getting started with live events, the planning process can be overwhelming. We talked to Melissa Blazejewski, Jasmine Cortez, and Marisa Laureni who have all produced large-scale enterprise events, and asked them to share some of their tips and best practices for a successful event.
While event production is one half of the job, there’s a whole other function in aligning your events with the sales organization and having pre and post-event processes in place that will help deliver the ROI we need to justify the spend.

The biggest element that’s overlooked is remembering to think of the event from your attendee’s perspective. I always recommend that a planner walks through the entire event flow from an attendee perspective, from arrival (is there adequate signage so that I can easily identify the entrance), to registration, to ambiance (music, food), and interactive elements that enable your attendee to engage with the space and put their own footprint on the event. If your attendee isn’t happy with the event, regardless of what your goals are, they will leave with a bad impression of the brand.

Event planners spend a great deal planning for the execution but sometimes overlook planning for what comes after. There is a short amount of time to capitalize, so coming up with a follow-up plan after an event is over is not a good idea. You should spend just as much time planning for the follow-up if you really want to connect with those new leads or contacts.

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exceptionally important in event planning. I’ve been doing it for about 10 years and I still learn something new every time. Every event is unique and the variables are almost always changing – tastes and budget change from project to project. Therefore while you learn from each experience, you have to look out for the nuances that made a particular decision good in one instance, but know that it may not work again in the same way.

Another thing people forget is how expensive events can be overall — the two most expensive components are the Audio/Video components and the catering. For any conference, you definitely need A/V without question for your live audience, but, it’s not 100% necessary to feed everyone. You should pay top dollar for any A/V equipment and labor you bring in unless you know the in-house system is good.

Keep in mind you’re never just paying for the equipment or food. Bartenders, bussers, or technicians are all required to make everything work and they cost as much or more. These things are sometimes easy to cut out when you are in the planning phase – but believe me, when you are in the middle of a live event and the the microphones are feeding back or no one can hear them, or if you pay lots of money for film that is unwatchable, or you look around and there is trash everywhere or people are leaving because they are hungry – you’re going to regret those decisions or pay triple to fix them at the last minute.

What is the most difficult thing about planning an enterprise-level event?

Melissa: Planning for the unexpected. There will always be things that go wrong but it never hurts to have a backup plan. It’s extremely difficult to think of everything – there will be obstacles you didn’t anticipate. Stay calm, be resourceful, and most importantly learn how to prevent similar problems from happening in the future.

Jasmine: Analyzing the ROI on an event is often the most difficult challenge. In my circumstance, I’m heavily reliant on my sales teams to properly enter and identify their event leads in our CRM system. My success depends on the sales team’s success in closing deals.

Marisa: Getting the right kind and right number of people in the room at the same time. Audience development is probably the number one element of the planning process that is often overlooked. The higher the level of executive you are targeting, the harder it is to get them to agree to come and actually show up.

What is your budget for video and how do you use video content around your event?

Melissa: We only use video for our largest hosted event, which happens to be a single, annual conference. Our budget
is approximately $20K. We use video a number of ways. To keep our attendees engaged throughout the day we incorporate video interstitials in the programming. We encourage speakers to use video in their presentations and we livestream our content for remote attendees who can’t join. The video produced from the livestream plays a key part in our content marketing strategy and post event follow-up. These videos are resources that our team continuously leverages for educational and promotional purposes.

"The video produced from the livestream plays a key part in our content marketing strategy and post event follow-up."

Jasmine: Video budgets roll into an overall event budget and will only be accounted for with hosted events that have a good amount of programming or speakers. I use video content for post event follow up and to share with people who weren’t able to attend. We’ll record speaker sessions and B-roll and loop this into a sizzle reel that can be used to entice attendees to register for the organization’s next event. The video content will be repurposed in blog posts, post event emails, social, etc.

Marisa: If you decide to film something make sure not to skimp on it. You only have one chance to capture a live event and if you miss it because of bad equipment or untrained staff or worse, trying to make one technician do too many things, then something will go wrong and your chance is gone. Video for a conference can serve to promote the event next year. There’s an argument that livestreaming will cannibalize your attendance, but I don’t believe that. I think people go to a conference, yes to hear good speakers, but just as important are the people they meet – a new lead or business partner is a good reason for going.

“There’s an argument that livestreaming will cannibalize your attendance, but I don’t believe that.”

Before you decide to film, you have to understand what final end product you want. For example, a one-camera shoot rarely looks good, but it depends on how many people are on stage at once or for how long. A two or three camera shoot is better if you want a lot of people to view the end product. Which begs the question, what will be done with the footage once the event is over? Editing is almost never thought about before an event is filmed, but it’s arguably the most difficult and crucial part of the entire process. These factors have to be discussed before embarking on an A/V setup for your venue and your budget.

How do You Measure Success?

Melissa: In terms of video content, the view time has drastically increased (nearly doubled) over the last two years, which expands our audience and reach all driving back ROI.
Jasmine: Events was the highest performing channel in terms of net new lead generation and pipeline acceleration for our sales team.

Marisa: This differs from client to client. Some want to sell tickets to next year’s event, market their company or product to the world, gain new leads, or just wine and dine their clients and keep them coming back.

What advice would you give to a marketing team planning their first big event?

Melissa: I would say start early. Work backwards from your event date, set milestones, and benchmark a timeline. Once you determine the “start planning date” add even more time! You can never have enough of it! Determine the location, format, number of attendees, etc. and work from there. Changing some of these key elements can really impact your event and your planning so making these decisions upfront can save you a lot of headache and unnecessary stress down the road.

Jasmine: In a B2B role, be sure that you are extremely aligned with your sales team and involve them in the process from start to finish. Be very transparent about what goals you need to hit and arm them with the tools they need to help you build the right type of attendees. Make sure that you have a solid pre- and post-event engagement plan, way before the event occurs.

“Be sure that you are extremely aligned with your sales team and involve them in the process from start to finish.”

Marisa: For the love of all that is holy, make sure you hire someone that has a lot of experience planning a big event. If you have A/V and visuals at your event, you need someone who has the ability to communicate to the tech team so they know what to do and when. This usually comes in the form of a production schedule or run of show which breaks an event down minute-by-minute and lists everything that has to go on screen (like graphics), or has to be played back (like video or music), and when and how many microphones are needed. If you don’t know what this is or how to write one, hire someone who does.

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**Event Planning Timeline**

- **200-400 attendees**: 6-8 weeks
- **400-800 attendees**: 3-4 months
- **800+ attendees**: 6 months to 1 year
• Think about the use and purpose of your video content early on in the planning process.

• Don’t just budget for video but plan for both live and recorded video and use the recorded content as an ongoing marketing asset past the date of the event. You can even collect leads with your livestream.

• Give yourself enough time to plan based on your attendee size.

• Account for event staff – from food to tech support – when creating your budget.

• Think of the event from your attendee’s perspective.

• Plan your follow-up strategy before the day of the event.
How to Get Started with Live Video Production

Producing your own live video broadcast can feel like a daunting task. You may be unsure of the technical requirements or how to get started. How can you produce the best possible stream?

At Livestream, we have a team of professionals working in the field every day, producing live broadcasts for a variety of clients. They travel around the world, making sure production after production is flawlessly executed. We talked with Livestream’s Head of Productions, Joe Bandelli, and Project Manager, Dennis O’Brien, to come up with the top five questions you should ask yourself before embarking on a live production.
What is my content strategy?

“When planning a live event, it’s dictated by your content. The type of event dictates how you light it and how you shoot it,” said Bandelli. What are you going to stream? What will your audience be watching? The content of your stream determines how you will execute the production. Here are the four key components to keep in mind when planning your content:

Interest

“When thinking about what you will be streaming, make sure it aligns with the interests of your intended audience,” said Bandelli. If your audience enjoys music, plan a concert. If your audience is interested in literary pursuits, host a panel of authors. Make sure your content matches your brand voice and targeted prospects and customers.

Action

Have you ever watched an event with lulls in action? Your viewers do not want to watch a graphic slide for five minutes or experience a pause in audio or video. Make sure something is always happening on screen. Keep it interesting, and your audience will keep their eyes on your content! Your number one job as a live video producer is to make sure that the screen never goes to black.

Consistency

If possible, turn your live event into a series, like Livestream Learn or Shapeways Live. “Keeping your events consistent is a guaranteed way to increase brand awareness and brand equity, while engaging meaningfully with your audience,” said O’Brien.

Actionability

Is there a call to action at the end of your stream? “Your viewers should be prompted to follow you on social media, ask post-event questions in the chat, or tune in to your next event,” said Bandelli. “If you want to turn your event audience into conversions, you need to facilitate viewer interaction after the stream is over.”
“Choosing a location for your livestream relies on where your audience lives online and who you want to be able to see your stream,” said O’Brien. “Your livestream can be embedded on your website, social media, and/or a livestreaming platform.” If you’re streaming a private event, it is a best practice to embed the stream on your website or create a password-protected event. If you are streaming a public event, the more eyes, the better. Your content should live on multiple platforms and websites.

Will the quality of the in-house experience match the online experience?

As a live video producer, it is your job to make sure the streaming setup doesn’t interfere with the in-house experience. “Make the audience feel like they’re at the event,” Bandelli said. “But make sure you don’t harm the experience of the in-house audience.” Cameras and lighting that create an optimal online stream can easily facilitate a negative audience experience. To make sure the in-house audience is happy, test the lighting, camera and equipment placement before the event starts. Your job is to be as invisible as possible to your in-house guests, while creating an incredible online experience for your viewers.

Have I scheduled time to test my stream?

The best thing you can do to prevent mishaps during the production is test your stream. Test primary equipment workflows, backup equipment workflows, audio quality, video quality, internet connection, etc. “It is imperative that you confirm your upload speed,” said Bandelli. “You can test your connection speed at Speedtest.net.” You should schedule time to test your cameras and equipment off-site and on-site.

Have I visualized disaster?

“Anything that can go wrong, will go wrong,” O’Brien said. Murphy’s law definitely applies to live video production. You need to be prepared for the worst in the world of live video and events. If you identify the things that might go wrong, you won’t be as flustered when they actually do go wrong.
After you’ve examined these questions, it’s time to get down to streaming business. According to the Livestream Productions experts, the four live production essentials are: Power, internet, a table and chairs, and total access to your venue.

**Power**

Power might not make your initial list of concerns when preparing for a live production, but it should. Without power, your stream will go black, and that is the worst thing that can happen. “The larger the production, the more power it can draw,” said O’Brien. “If you have everything on the same circuit, everything fails, the stream fails, and you are embarrassed.” The Livestream Production team operates with every essential on its own circuit. Lights are on their own circuit, audio tools are on their own circuit, and encoders are each on their own circuit. “We tend to put our encoders on multiple circuits to create redundancy. We also use UPS power (an uninterruptible power supply) as a backup in case the power goes down. This ensures that the stream will never completely fail if one of the circuits fails,” said Bandelli.

**Internet Connection**

It is a best practice to use a dedicated, reliable internet connection. “Always have twice as much upload speed available as the bitrate you want to stream at,” said Bandelli. “The most reliable internet connection when streaming is connecting directly via Ethernet to a dedicated network.” This means that no other computers or devices have access to that network. This connection type is less likely to experience bandwidth fluctuation than shared networks or wireless connections.
The experts at Livestream recommend a dedicated, hard-wired ethernet, 10Mbp+ upload speed, and open ports. Open ports 1935, 80, and 443 to allow for maximum inbound and outbound traffic.

**Access to the Venue**

“Make sure you have access to the venue and the ability to load in your equipment,” said O’Brien. “Confirm with your venue beforehand about all-access rules and loading regulations. Be prepared to purchase insurance; some venues require insurance to allow you to load your equipment in properly.”

If you have these four items checked off, you’re on your way to producing a successful livestream. That being said, there are important technical aspects of a live video production that need to be addressed. A table helps, but a stream can’t exist without cameras, an encoder, a switcher, etc. Whether you’re streaming on the red carpet or from a conference room, the same technical tips apply. No matter your budget or organization size, you can create a professional quality live video experience.

**Table and Chairs**

This is a crucial requirement of a live video production that is often neglected. “Switchers and encoders are useless on the ground,” said O’Brien. “A 6-foot table is necessary to create the best livestreaming setup.” Just like you need a table for your equipment, you need chairs for your producers. Live video producers need to be able to sit when switching and encoding a stream. It may seem simple, but adequate seating for your tech team is a core component of an ultimately successful stream.
The Seven Technical Requirements for a Successful Stream

1. Camera(s)

“Regardless of whether your stream is a single-camera production or a multi-camera production, you will need to buy or rent cameras,” said Bandelli. Your purchase decision will depend on what you want your stream to look like, your budget, and your experience.

There are several cameras that Livestream relies on to execute quality productions. Livestream’s favorites include the Sony PXWX70, Sony PMW-300K1, and Canon XA10.

Other options include:

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<tr>
<th>HD - SDI Cameras</th>
<th>HDMI Cameras</th>
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<tr>
<td>• Sony FS700</td>
<td>• Canon XA10</td>
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<tr>
<td>• Sony PXW-FS5</td>
<td>• Canon XA30</td>
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<tr>
<td>• Sony PXW-FS7</td>
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<td>• Canon XF305</td>
<td>• GoPro Hero 4 Silver</td>
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<td>• Canon XA25</td>
<td>• GoPro Hero 4 Black</td>
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<td>• Canon XA35</td>
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<tr>
<td>• Panasonic AG-AC130A</td>
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<td>• Panasonic HPX Family</td>
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2. Input

Whether you choose one camera or multiple cameras, you need to know what audio/video cables you will need to create your feed. Below are the common options.

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<thead>
<tr>
<th>HD-SDI (HD or SD Digital)</th>
<th>HDMI (HD Digital)</th>
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<tbody>
<tr>
<td>Professional grade cable which supports HD video (including embedded audio).</td>
<td>Consumer grade cable which supports HD video (including embedded audio).</td>
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</table>

3. Equipment

Equipment also plays an integral role. “An unstable, shaky video is not what your audience wants to watch,” said Bandelli. If you are executing a single-camera production, a tripod can ensure a stabilized stream. You can also purchase or rent professional camera stabilizers.

If you’re producing a big event, you need to invest in risers. “Risers are a big thing,” said Bandelli. “Risers prevent audience members from crossing the frame.”

4. Encoder

Encoding is the difference between a video recording and a livestream. An encoder is a piece of hardware or software used to convert a live feed or pre-recorded video so that it is viewable over the Internet via computers and mobile devices. Examples of encoders include Livestream Studio software or the Broadcaster Pro.
5. Switcher

“When you have more than one camera, you need a live production switcher,” said O’Brien. “A live production switcher allows you to mix between multiple camera angles during the live broadcast.” This is necessary in the event of a multi-camera production. Live production switchers can vary based on the amount of camera inputs. The Livestream HD550, for example, has five camera inputs.

6. Audio

“When you’re thinking about audio, you’re thinking about digital and in-house quality,” said Bandelli. There are a few different options when it comes to integrating audio into your live production. You can use the built-in camera microphone, an external microphone plugged into your camera, or a mixer plugged into your camera.

If you don’t want to run audio directly from your camera, you can use a USB audio mixer. The Livestream production services team has had the most success using a driverless USB audio mixer integrated with a production switcher like the Livestream HD550.

7. Lighting

The traditional model for lighting is the three light model: a backlight, a key light and a fill light. In today’s streaming world, more than three cameras are typically used for a professional production. Livestream producers used twelve lights to illuminate Elon Musk at a Tesla all hands meeting.

If professional lighting isn’t in your budget, that’s okay. You can get creative. In an ideal world you want to buy or rent professional lights, but you can definitely craft a DIY solution to your lighting problems. If you’re in a meeting room at work, play with natural lighting. Don’t be afraid to use the sun, it’s the best lightsource we have. Experiment with opening and closing the window shades to find the perfect balance of natural and manufactured light.
Custom Branding

Your event’s branding should reflect your company. Make sure that you are using the colors, language, logos, and other signifiers that adhere to your brand identity. Keep in mind, if your event doesn’t look good, people won’t tune in to watch when you broadcast live.

“If you’re looking for inspiration, you can head to the National Rugby League page,” said O’Brien. The National Rugby League consists of the premier teams in Australia and New Zealand. They are the most viewed and attended rugby league as well as the highest regarded rugby championship in the world. Their Livestream page and individual event pages reflect their signature branding regardless of content.

There are a number of logistics that you need to think about before beginning to plan your stream. “The most difficult livestreams are the ones that work from the livestream backwards,” said O’Brien. “The most important thing to remember is that you need to produce an in-person event to be able to livestream it.” Remember that venue, type of event, budget, insurance, and event management all need to be in place before you embark on your live video production.
Takeaways:

• Always think content-first: what content are you streaming at your event, who is the audience, how will it be distributed, and how will it be used post-event?

• Try to plan your livestream alongside your entire event. Planning this element at the last moment will make logistics more difficult.

• Designated internet and power sources are best for livestreaming events. Build in time to test your infrastructure pre-event.

• You don’t have to go it alone — Livestream’s production services team are true pros and can bring the experience needed to make your event a success.
Case Studies

Now that you know what you need for your live event and live video stream, let’s talk examples and ROI. Explore how SaaStr, Enterprise Sales Meetup, and 4A’s all used Livestream to expand their reach and amplify their live events.
How Livestream Helped SaaStr Increase Their Audience by 44X

SaaStr is a leading force in SaaS sales, developing content and hosting multiple events throughout the year for the next generation of SaaS and B2B entrepreneurs. In 2015, Livestream partnered with the organization to stream their Sales Hacker and SaaStr Annual conferences.

While 5,000 people from 47 countries attended in-person, the SaaStr Annual livestream reached over 109,000 live viewers and another 112,740 on demand, growing their total audience size by 44X.

“We want to connect with the entire world of SaaS founders and Livestream is absolutely the way to do it.”

Jason Lemkin
Founder, SaaStr
By opening SaaStr’s event through a livestream, they were able to reach a global audience that exceeded the physical capacity of their venue. This meant more eyes on their content, more brand awareness, and more leads. “We know there are people that want to attend and want to learn, but everyone but can’t make it,” said Sales Hacker Founder and CEO Max Altschuler. “It’s a great way to reach those people. They can watch what’s going on, interact with attendees on Twitter, and interact with their friends that are here while they’re watching the content.”

**SaaStr’s secret weapon for massive audience amplification was Livestream Audience Booster.**

Livestream Audience Booster is a tool that allows our customers to reach an exponential number of viewers for only pennies per view.

Livestream Audience Booster turns live video content into embeddable native advertisements. These videos appear on premium websites like MSN, USAToday, Slate, and ESPN, acquiring real views from real people. You can also hand-pick websites based on the audience you’re targeting.

“The whole point of the Saastr community is we all grow and do sales and marketing the same way,” said Lemkin. “So if we get together either physically or virtually through Livestream, we can all learn together.”
How Livestream Helped 4A’s Transformation Expand Their Event Audience 25X

At Transformation 2016, over 1,000 leaders across the advertising, marketing and media industry came together to share ideas and insights.

1,000 attendees
41,600 Livestream viewers

Over 16,600 viewers watched the event live, with over 25,000 additional viewers tuning in for on-demand content, increasing the total audience 41X.

Michael Burns
SVP of Events, 4As

“Livestream helps build brand awareness and to strengthen our product offering with our membership.”
But many members could not make it to Miami for the conference, and 4A’s still wanted them to feel included. “We wanted an opportunity and a vehicle to extend our reach to our membership,” said 4A’s SVP of Events Michael Burns. “So for us to be able to deliver some of the content, training, education, and awareness that we’re providing here, to them in their offices is a huge benefit.”

“It helps build brand awareness and to strengthen our product offering with our membership,” said Burns. “I think the more people understand the value of the content we’re providing there’s a great opportunity to impact growth for not just this event but future events.”
Enterprise Sales Meetup Reaches More Members Online

After working with the startup community for a few years, Mark Birch saw a need to have real conversations around sales tactics and best practices in what was often a very junior market.

Enterprise Sales Meetup’s in-person events are usually attended by 50 to 100 people, but over 28,700 viewers have watched these events live.

Mark Birch
Founder, Enterprise Sales Meetup

“I see Livestream as instrumental to the success of Enterprise Sales Meetup.”
“They don’t have a lot of experience around sales so Meetup was a good opportunity to bring together a lot of those folks,” said Birch, the Founder of Enterprise Sales Meetup. “Over time that started to expand to people a little later in their careers, a lot of sales leaders who also want to come to Meetup to be part of the community and sharpen their own skills.”

Enterprise Sales Meetup works to build a community of salespeople in major cities across the U.S. through monthly events and online content that allows members to network, share ideas, and learn from successful sales leaders. Their goal: “to bring innovative, modern enterprise sales techniques to sales professionals that are practical and actionable.” Part of how they achieve this is through livestreaming their events to their wider community.

“Our community demands it. They want to have access to the events even if they can’t be there in person and this is an easy way to connect to those folks and have them feel as if they’re part of the community. Having Livestream as a partner helps me get the message out about what we’re doing here – giving access to all this great content and all these great speakers so that anyone around the world can view the content and learn from it.”

Livestream has also helped expand Enterprise Sales Meetup’s in-person events. A Director Of Sales Development reached out to Birch about setting up a Denver chapter after seeing several Enterprise Sales Meetup livestreams. They just launched their first event, which was also broadcast on Livestream.

Birch’s advice to others dreaming of launching an industry-focused Meetup is to start small and think achievable. “Don’t bite off more than you can chew,” he said. “That goes for all aspects of the event. Just focus on the core elements of what will make your event successful. All the other bells and whistles can be added after you’re able to execute a really solid event.”

Birch suggests organizers also really focus on creating quality content, not just facilitating in-person networking. “Livestream is a great thing to help, it gives me an opportunity to reach people I couldn’t reach,” said Birch. “Just consider what it takes to get up and running. Once you have the events, it makes sense to add interactive elements if you’ve already been successful at doing the basic things well.”
The A-Z of live video

We know that between encoders and RTMP’s, the lingo of livestreaming can get a little overwhelming. Luckily we’ve broken down all the terms you need to know here.

**Audio Mixer:** A controller that takes in and combines various audio sources and allows the user to route each audio signal to a proper output and adjust each source’s levels. Can also be referred to as a sound mixer, mixing desk, or simply a mixer.

**Bandwidth:** Typically measured in bitrates, bandwidth refers to the amount of data that can be transferred from one location to another in a given amount of time.

**Bitrate:** The speed at which data is transferred over the Internet. The data is measured in bits, not to be confused with bytes.
- **Kilobit per second (Kbps):** A unit of data transfer rate equal to 1,000 bits per second.
- **Megabit per second (Mbps):** A unit of data transfer rate equal to 1,000,000 bits per seconds or 1,000 Kbps.

**Blackmagic Design:** Blackmagic Design is a company that creates several recording and encoding products that are compatible with Livestream’s technology including several capture cards and devices.

**Bonding:** Bonding allows you to combine multiple internet sources (ethernet, wifi, and/or 4G cellular data) to establish a redundant connection for your stream. It is a feature of the Livestream Studio software.

**Broadcaster Pro:** An ideal solution for

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**Accepted Video Formats (In Livestream Studio):** Most common formats that are accepted include (but are not limited to):
- **.mp4, .m4v, .mov:** Standard for MPEG-4 files
- **.wmv:** Windows Media Video
- **.avi:** AVI (Audio Video Interleaved)
- A full list of containers and codecs are [here](#).

**Akamai:** The world’s largest CDN (Content Delivery Network) with 90,000+ servers all over the world.

**Anti-Lag:** A tool in Livestream Producer and Livestream Studio that can be triggered when the encoder’s local Internet connection becomes slow. When enabled, it will build a cache of frames until it reaches a certain amount, and then clear that cache. This is in attempt to keep viewers at the most up-to-date live content. Having this feature disabled while Internet connection slows down will cause buffering and an endless cache of frames growing. While this will prevent choppy VODs, live viewers will be significantly behind the live content.

**Aspect Ratio:** The proportional relationship between an image’s or player’s width and its height. The standards for broadcast are 4:3 and 16:9. HD video is natively 16:9, which is what we recommend. 4:3 is typical for SD video.
single-camera streams, the Broadcaster Pro can stream any HDMI camera directly without the need for a computer. All you need is an event page to stream to and an Internet connection via Ethernet, WiFi, or 4G.

**Buffering:** Before a video can play, a certain amount of pre-loading data must be downloaded to stream.

**Capture Cards/Devices:** Hardware devices that convert the analog video signal coming from a camera into a digital format that a computer can read and understand. Different models connect to a computer through different means (PCIe, USB, Thunderbolt) and support different video signals (SDI, HDMI, Component, etc.).

**Central Processing Unit (CPU):** The brains of the computer that carries out instructions given by a computer program by performing calculations and operations.

**Chroma Key:** A special effects technique where a block of color (often blue or green) in a video frame is replaced by another color or image. The most common use is during the weather forecast segment of a news program. Chroma keying allows the forecaster to stand in front of a computer-generated map, when they are actually standing in front of a large green wall.

**Cleeng:** A Livestream partner that allows content creators and broadcasters to monetize their live events through pay-per-view.

**Content Delivery Network (CDN):** A distribution system on the Internet that accelerates the delivery of Web pages, audio, video, and other Internet-based content to users around the world.

**Dedicated Bandwidth:** Bandwidth that is reserved to a single purpose on a network. With a dedicated connection, it is possible to guarantee a certain amount of bandwidth for the duration of a stream. For example: A Network Administrator at a trade show, for a fee, is able to allocate a specific amount of bandwidth on a network to an exhibitor for the duration of a show. Dedicated bandwidth is always recommended for livestreaming and is required for events produced by the Livestream Production team.

**Download Speed:** The rate that data can be transferred from the Internet to a user’s computer or device. This is key for users looking to watch a stream.

**Embedded Audio:** The audio signal is sent to the output source through the video signal. This workflow is recommended to avoid audio/video sync issues. For example, a microphone is plugged into a camera, then a single HDMI cable connected to the camera carries both the video and the microphone’s audio to an encoder simultaneously. The opposite would be the microphone being plugged into the encoder directly, separate from the camera.

**Embedded Video:** A video player that can
be seen on one website but is hosted on another website through HTML embed code.

**Encoding (video):** Encoding is the process of converting from a video source to a format that can be streamed over the Internet. **Example:** Procaster/Producer will convert a video source to H.264/AAC to be displayed on a Livestream player or mobile device.

**Firewall:** A security system that is designed to block unauthorized access while permitting authorized communications. This can cause issues when streaming if not configured properly. Livestream Studio, Producer, and Procaster use ports TCP 1935, 80, and 443.

**Flash Player:** A legacy software made by Adobe for viewing multimedia, Rich Internet Applications, and streaming video and audio, on a computer web browser. Capable of playing video in a variety of supported formats (most commonly H.264, H.263, VP6, VP7).

**Geo-Blocking:** The ability to restrict access based on the location of the individual attempting to see the content. This is typically determined by IP address.

**Graphics:** Logos, lower thirds, and text featured on screen during a stream or on-demand video.

**HDMI (High Definition Multimedia Interface):** An audio/video interface for transferring video and audio data to and from HDMI-compliant source devices (cameras, receivers, etc.). A common standard for connecting HD devices at the consumer level.

**HD Resolutions:** High Definition video resolution, which contains more pixels than Standard Definition.

**HD SDI:** Stands for High Definition Serial Digital Interface. It’s a video interface standard that allows for the transmission of high definition video over coaxial cable at faster speeds than other HD options, thus is recommended when longer cable runs are required.

**Internet Solutions:**
- **Mobile:** 4G and LTE: A Mobile internet connection uses a 3G or 4G modem to transmit data and is part of a shared network. Since connection speed plays a large part in the success of a livestream, a mobile internet connection is not recommended.
- **4G and LTE:** Networks with faster upload speeds than 3G as a result of limited user activity, improved technology, and reliability. **Example:** 8Mbps of upload speed.
- **Wi-Fi:** A wireless connection that allows multiple devices to communicate on a shared network without cables. Should be used for streaming only in extreme cases when no other option is available.
- **Wired:** A hard-wired connection that is established using an Ethernet cable. The cable is connected by the Ethernet port on a computer into an Ethernet outlet on a switcher/router or modem. A wired
connection does not always mean the connection is dedicated. Other devices can pull bandwidth from a router that the Ethernet cable is connected to. For streaming, a wired connection is considered to be more reliable and is always recommended.

- **Non-Dedicated Bandwidth**: Bandwidth that is shared over multiple devices on a single network can be wireless or wired; with no restrictions on what devices are in use and how much bandwidth they are using causing a sometimes-unstable connection. For example: A WiFi network located in an airport terminal that is open to the public with multiple devices sharing bandwidth on the same network.

**ISO Recording**: Abbreviation of ‘Isolated Recording.’ A recording of a single a camera source during a multi-camera production. Typically, multiple ISO recordings are done simultaneously and are edited together in post-production.

**Key Frame Interval**: A keyframe is a full frame of an image that provides a reference point within a video. They are typically used to detect changes in the video, such as movement of a talking head. The interval is how often keyframes are set within the video, which is configured in the encoder. If you are expecting lots of movement in your video, it’s best to have a shorter key frame interval, which can be data intensive and thus create a larger sized video.

**Latency**: The amount of time it takes for data to reach one point to another (e.g. the video from the event to be seen by the viewer). Synonymous with ‘lag’ and ‘delay.’ In livestreaming, lower latency is ideal. Livestream streams have about a 20-30 second latency to allow and facilitate DVR.

**Livestream Studio Cloud**: With Studio Cloud, anyone can take advantage of the power of cloud computing to run a fully functional production switcher entirely from a browser through a dedicated server in the Amazon cloud.

**Livestream Studio HD51**: A powerful, rack-mountable computer with all the necessary software and hardware pre-installed to produce a professional multi-camera event. All you need to do is plug in your HD-SDI or HDMI cameras and launch Livestream Studio to get started with a live video stream.

**Livestream Studio HD550**: An all-in-one, portable multi-camera solution for producers who tend to travel or have limited space to work with. It includes all the necessary software and hardware pre-installed, so you can plug in your cameras and start streaming.

**Livestream Studio Software**: A powerful software that allows for switching between multiple cameras, graphic overlays, video playback, high-resolution recording, and multi-bitrate streaming. It will work on Windows 7 or higher.

**Livestream Studio Surface**: A control surface that connects to any Studio system
via USB that gives you all of Studio’s broad functionality in an intuitive format. It includes controls to give you quick access to critical functions of a live production.

Livestream Studio Surface Go: A simple, light-weight control surface powered by USB that gives you only the essential controls needed to switch video in a production with Livestream Studio.

Livestreaming: The transmission of live video via a mobile or digital recording device that audiences can watch and interact with in real time.

Live Video Output: A physical output coming from your camera or switcher that allows your video source(s) to be seen in another source like a projector or monitor.

Lower Thirds: A lower third is a graphic overlay placed in the lower area of the screen, but not taking up the entire area. Lower thirds are used to identify speakers, places, or events on screen not previously identified in the context of the video.

Media Bins: A module in video software where a producer or editor can import and organize their pre-recorded video files.

Mevo: A small, live-editing and streaming camera from Livestream that allows you to record and stream live to Livestream or Facebook Live while editing the feed via an iPhone app in real time.

Open Broadcasting Software: Open Broadcaster Software is free and open source software for video recording and live streaming.

Password Protection: Restricting access to content via a password that is given out only to those who should see it.

Picture in Picture (PiP): The ability to see multiple video sources simultaneously.

Ping: Tests the reachability of an IP network or a server. It measures the round-trip time for messages sent from the originating host to a destination computer and then back to the source, typically in milliseconds.

Producer Software: Livestream Producer Software is a free encoding software that works on both Mac and Windows computers. This is ideal for simple webcam or single-camera streams that can also screencapture your desktop.

RTMP (Realtime Messaging Protocol): A protocol used for streaming audio, video and data over the Internet between a Flash player and a server. Commonly used by Adobe Flash Media Encoder, NewTek Tricaster, and Telestream Wirecast.

RTP (Realtime Transport Protocol): A network protocol for delivering audio and video over IP networks. Commonly used with video teleconference systems and web-based push-to-talk features.
RTSP (Realtime Streaming Protocol): A commonly used streaming protocol designed for entertainment and communications systems to control streaming media servers. Clients of media servers issue VCR-style commands, such as play, record and pause to facilitate real-time control of the media streaming from the server to a client (Video On Demand) or from a client to the server (Voice Recording).

Satellite Uplink/Downlink: When you do not have access to a dedicated 4G or Ethernet network, for example in a broadcast truck, a broadcaster can beam the livestream signal to a satellite and route it back to an office or dedicated line for encoding.

SD (Standard Definition) Resolutions: Any video resolution below 1280x720 is considered SD. Common SD resolutions include 1024x576 pixels and 720x480 pixels.

Switcher: Traditionally a large device that is used to select and switch between several different video sources, control graphics overlays, and perform keying operations and general color signals. In recent years, switchers have become available as software installed on PC’s like Livestream Studio, Newtek Tricaster, etc.

Teradek: A company that builds video encoders, decoders, and transmitters, among other products. Teradek manufactures wireless video devices for remote video capture, camera control, real-time monitoring, color correction and webcasting. The Livestream platform supports the Teradek VidiU and the Teradek Cube.

Transcoding: The process of converting data from one form of coded representation to another.

Transmission Control Protocol (TCP): TCP is a communications protocol which enables two hosts to establish a connection and exchange streams of data. Guarantees not only the delivery of data but also that packets will be delivered in the same order in which they were sent.

Transcoding: The process by which video files are converted to a reduced bit rate while still maintaining the original video format. This enables users to fit specific media into a much smaller storage space or deliver video files more efficiently using reduced bandwidth.

Upload Speed: The rate that data can be transferred from a user’s computer or device to the Internet. This is key for users looking to broadcast an event.

User Datagram Protocol (UDP): A communications protocol used primarily for establishing low latency and lost-tolerating connections between applications on the Internet. Ideal protocol for network applications in which perceived latency is critical such as streaming or gaming.

Video/Audio Compression:
- H.264: Is a standard for video
compression, and is currently one of the most commonly used formats for the recording, compression, and distribution of high definition video.

- **AAC**: Advanced Audio Coding is the default or standard audio format across all media platforms, including YouTube, iPhone, iPod, and iPad.

**Video on Demand (VOD)**: The ability for viewers to watch or listen to content when they choose to rather than having to watch at a specific time.

**WebRTC**: WebRTC enables voice and video calling directly inside a web browser without a plugin or installation via a JavaScript code run from your HTML page.

**White Labeling**: The practice of a product or service being provided by one company but rebranded by another to make it appear as if the latter made it.

**Workflow**: A sequence of equipment or processes through which a piece of work passes from initiation to completion. In video production, it typically refers to the process in which your video and audio reach your audience: what camera, cables, capture device, encoding software/hardware, Internet connection, etc. is being used.
In 2007, Max Haot, Daya Nanjundappa, Phil Worthington and Mark Kornfild dreamed of a world in which every event was streamed live online. They launched Livestream (formerly Mogulus) as a free service that enabled anyone with a camera and an internet connection to stream live to a global audience. The Mogulus tagline was “Create Your Own TV Station,” which encouraged everyone to create their own 24/7 channel. In 2008, Mogulus launched a “pro” service in partnership with Gannett to livestream the 2008 U.S. presidential election.

In 2009, the founders re-branded Mogulus as Livestream and shifted focus to professional livestreaming solutions. The live video startup quickly became the industry leader, working with the Associated Press, Clinton Global Initiative, World Economic Forum, SpaceX, Tesla, Spotify and other major brands. Organizations large and small use Livestream for concerts, conferences, panels, interviews, sports games, lectures, product launches, and occasionally, rocket launches.

Since 2007, Livestream has expanded with offices in New York, Los Angeles, London, Bangalore, and Zaporizhia. In 2014, Livestream’s Global Headquarters moved from the Google building in Manhattan to a new office space in Bushwick, Brooklyn.

Livestream is the only comprehensive livestreaming solution, providing the streaming platform, hardware, studio software, best-in-class support, production services, and analytics to any person or organization with the desire to reach a global audience. Livestream is trusted by over 30,000 organizations, from local communities to global brands, and streams over six million events a year.
How Livestream Can Help

- Enterprise brands and startups can securely stream conferences and product launches to expand audience reach.
- Global brands can keep employees engaged with secure, hassle-free all-hands and multi-team meetings on live, interactive video.
- Television, News, and Radio Broadcasters can stream their programming to a digital audience and build additional ad revenue.
- Sports teams from community to pro can keep fans engaged around the world and expand their digital content offering.
- Houses of Worship can expand their audience and donations through livestreamed services, study sessions, and concerts.
Want to learn more about unlocking the power of your live events and creating more ROI with an expanded audience?

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Contact our sales team today to find the Livestream solution that’s right for you.

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