



Google+  
Hangouts On Air

We're constantly amazed by the innovative ways the Google+ community is using Hangouts On Air conducting political debates, broadcasting breaking news, performing virtual concerts, hosting photography roundtables, redefining education with global office hours, and much, much more. Along the way, we've received two common requests from users: the ability to share the Hangout On Air beyond the 10 participants and the ability to record their entire conversation.

Now, we're excited to invite you to try out a completely self-service version of Hangouts On Air, so you can broadcast your conversations to people around the world. Once you've finished your broadcast, we'll upload a full-length recording to your YouTube account, which you can then share with everyone.

If you're ready to host a Hangout On Air, this guide will help guide you through the process and give you some pointers to ensure that your Hangout On Air is a success.

## Checklist

1. [Get ready to video call](#)
2. [Your first Hangout On Air](#)
3. [Your YouTube recording](#)

# 1. Get ready to video call

## System requirements

### Supported Browsers:

Google Chrome 10+ [Download](#)  
Microsoft Internet Explorer (IE) 8+ [Download](#)  
Mozilla Firefox 16+ [Download](#)  
Safari 4+ [Download](#)

### Supported Operating Systems:

Mac OS X 10.6+  
Windows 7  
Windows Vista with SP1 or later  
Windows XP  
Chrome  
Ubuntu and other Debian based Linux distributions

**Processor Minimum Requirements:** Any 2 Ghz dual core processor or greater.

**Bandwidth:** For 1:1 connections we suggest a 1 Mbps/1 Mbps (up/down)  
For group video connectivity we suggest 1 Mbps/2 Mbps (up/down)

The bandwidth used by video calls is adaptive and will vary to provide the best experience for the given conditions. Here is a guide for the minimum and maximum bandwidth requirements and expectations:

### Here are some guidelines around bandwidth usage with video calls:

**Minimum bandwidth required:** Outbound from the participant: 1 Mbps  
Inbound to the participants: 2.5 Mbps

**Ideal bandwidth for the best experience:** Outbound from the participant: 3 Mbps  
Inbound to the participant: 3 Mbps

**With group video calls of more than 2 people, try to make sure everyone has at least the following bandwidth:**  
Outbound from the participant in all situations: 5 Mbps  
Inbound to the participant in all situations: 5 Mbps

## Webcam

We recommend using a high quality external webcam, such as the Logitech C910. Depending on your broadcast event, you may want to recommend or provide a similar camera to each of your participants.

## Lighting

We've seen it all before. A bad webcam, a dark room, the glow of the monitor casting unflattering light across someone's face. Video calls work best in a well-lit environment. If you can't flood the room with natural light, make sure you set up a light source facing you (behind the webcam, but towards you).

## Audio

To ensure the best audio, please make sure you are in a quiet, controlled environment like a studio. Video calls pick up on background noise, so make sure there are no noise distractions around you.

If you experience an echo, there are three possible causes.

1. A video call participant is playing the live stream of the Hangout On Air in another browser window.

**Solution: have everyone close any windows other than the video call.**

2. Two people are dialed into the video call in the same physical room.

**Solution: move to separate rooms or sit together in front of a single computer.**

3. External Speakers pointed towards your microphone can sometimes cause an echo.

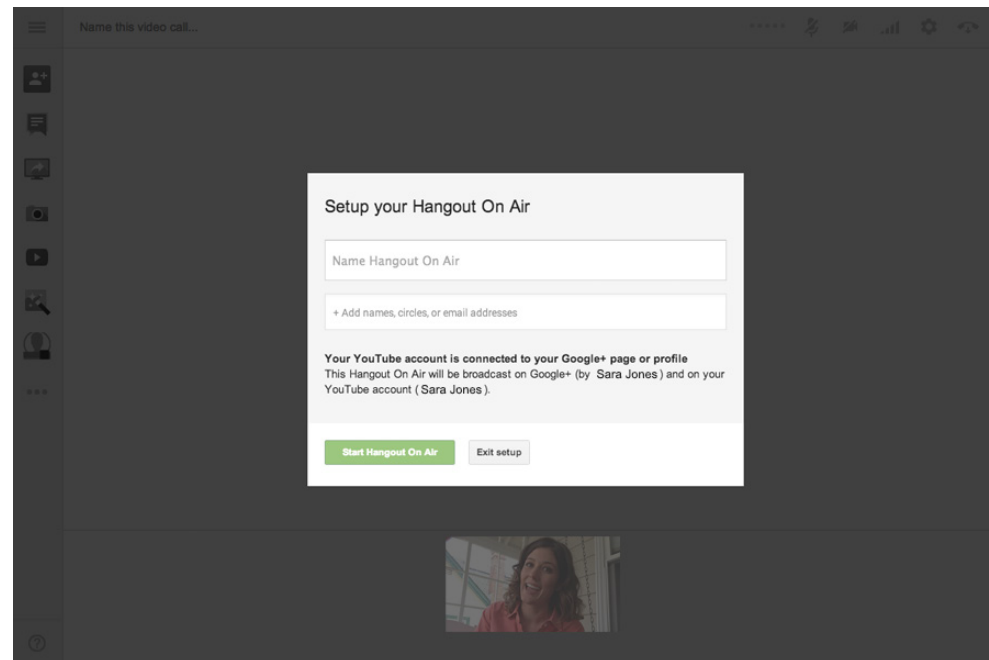
**Solution: use headphones or earbuds.**

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## 2. Your first Hangout On Air

### How to start a Hangout On Air

Navigate to [plus.google.com/hangouts](https://plus.google.com/hangouts) and click on the “Start a Hangout On Air” button.



## Link and verify your Youtube account

Linking and verifying your YouTube account allows you to also broadcast your Hangout On Air live on your YouTube channel and to record your broadcasts to your YouTube account as public videos.

When you select the “Start a Hangouts On Air” option, we’ll check whether you have a verified YouTube account associated with your Google login. If you don’t, you’ll be taken through the process of creating and verifying a YouTube account. Don’t worry, you only have to do this once.

## Name your Hangout On Air

The name you enter will be displayed as the title of the Hangout On Air post in your Google+ stream as well as the title of the recording saved to your YouTube account. The Hangout On Air title cannot be changed after you set it. The YouTube video title can be adjusted on YouTube.

## Invite your participants

You can invite individuals or your circles to participate in your Hangout On Air. You can’t invite extended circles or the public to join Hangouts On Air. It is very important to make sure you are careful about who you invite. You are responsible for the content of your broadcast. Accounts that violate our terms will be disabled.

Your participants will not see an option to invite others. However, if they copy and paste the URL of the Hangout On Air from their browser window and post it publicly, or email the link to someone, anyone who clicks on the link can join the video call if it’s not full. It’s very important that you clarify with participants that they cannot share the link with anyone else.

**\* If you are managing a Google+ page, it’s important to note that you cannot add people to circles or invite them to a Hangout On Air unless they’ve added you to a circle first.**

## Preview post

Once you have invited participants they will receive an invite in their stream. In your stream you will see both an invite and a player post. The player post is your preview post only visible to you. It allows you to preview what the video will look like before it goes live.

## Embed your Hangout On Air on your website

If you want to broadcast live on a website you own, you can click the “embed” link and copy and paste the code into your website. This embeds a YouTube player onto your site, and your visitors can watch the live Hangout On Air directly from your site, as well as on Google+ and your YouTube channel.

## Start broadcasting

Click the red “Start broadcast” button to broadcast this video call to the public on your Google+ profile or page. This will make a new post that looks similar to the invite post but will not have a join button. Users who are invited to watch can make the player full screen. The recording actually starts at the end of the countdown that begins when you click “Start broadcast”. In addition, a live stream of your Hangout On Air will appear in your YouTube channel as soon as you begin your broadcast. A live count of your viewers will appear directly next to the embed link so you can keep track of how many people are watching.



## End your broadcast

To end your Hangout On Air, click the red “Stop broadcasting” button.



## Moderation and Production

Hangouts On Air offer a few moderation controls to the broadcaster. They are the following:

**Cameraman:** Gives you control over which cameras are broadcasting and allows the host to hide certain participants from a broadcast. Cameraman is only available for Hangouts On Air, and only the host may access it. You'll see a camera icon when hovering over a participant's thumbnail, which allows you to hide them from your broadcast. Note: they will still be in the HOA, but your viewers won't be able to see or hear them.

**Sticky click:** You can choose which of the 10 small videos appear as the main video by hovering over the small video and clicking on it.

**Mute:** You can remotely mute a participant by hovering over any user's small video at the bottom, and clicking on the microphone icon. However, keep in mind any participant can unmute themselves.

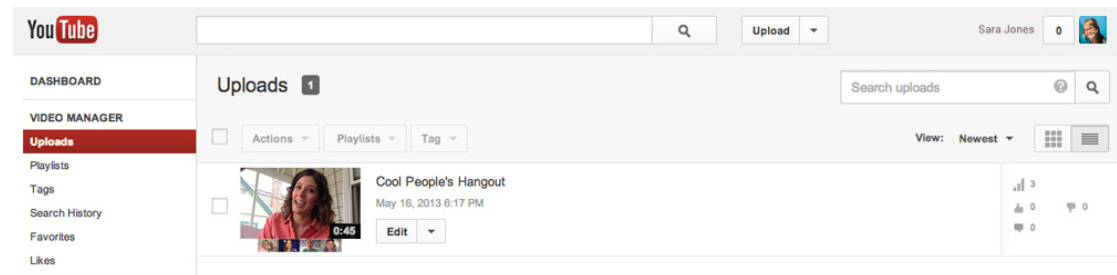
**Block:** As a last resort, you can block a participant in a Hangout On Air who is engaging in inappropriate behavior. When you block someone, their audio and video will cut out, but they will still appear in your Hangout On Air and to your viewers as a black box. To block someone, hover over the participant's small video and click the hand.

\* It's important to note that there is no kick option. Be very thoughtful about who you invite.

## 3. Your YouTube Recording

### Find the recording

After the Hangout On Air, a recorded video will automatically post publicly to your YouTube channel as well as all the places your live stream was visible, including your Google+ page, and embedded website links. If you'd like to edit or make changes to the video, head over to your YouTube channel. Go to [www.youtube.com](http://www.youtube.com), click your username in the upper right hand corner of the screen, click video manager, and there you will see a video with the same title of your Hangout On Air.



### Processing time

You'll notice that the video says processing. This processing time can take a few minutes or several hours. We're always working on speeding up the processing time. (Note: All Hangout On Air videos are subject to the same terms and conditions as other YouTube videos. The upload process for your video may be stopped if the YouTube Content ID system detects unauthorized third-party content in your video.)

### Preview your recording

Once your video is done processing, it will appear as a public video in your YouTube channel as well as in your original Google+ Hangout On Air post. Play the video from start to finish, paying close attention the beginning and ending. Feel free to edit the title of the video, add tags, change from public to private, add a thumbnail etc. You can do this all by clicking the title of the video from the video manager and clicking edit video or edit settings. The video will only be editable if it's less than 2 hours in length.

### **Editing your recording**

If you click to edit the video, you'll find tools that YouTube has provided for you to edit in browser. The most popular of these tools is the trim function. Use this tool to tighten any dead time in the very beginning or end of your broadcast recording.

When you save an edit, the video will have to process again. This may take some time. If you want to download the video and edit it using 3rd party software, that is also possible. You'll see this option from the video manager view of your recording.

### **What does the public see?**

One question we often get asked is, "what do members of the public see when they are watching my Hangout On Air?" The public will see exactly what the Hangout On Air broadcaster sees. This means if you sticky click a participant and lock him in as the main video, that is what the public will see. If you block someone and see a black box in your Hangout On Air, that is what the public will see. The one exception is the "chat" feature. Only the participants in the Hangout On Air can use and see the chat window on the right. In addition, the public won't see any of your Hangout apps with the exception of added video effects.



# Programming Best Practices

As you prepare for your Hangout On Air, use the following checklist to ensure your conversation goes off without a hitch.

1. Define the conversation
2. Pre-production
3. Announce your Hangout On Air
4. Selecting and testing with participants
5. Broadcast day
6. Marketing after the Hangout On Air

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## 3. Define the conversation

At their core, Hangouts On Air are about engaging conversations among real people. As with any conversation, you need to figure out who the participants are, and what the topics for discussion will be. You can create any type of conversation you'd like, but here are some things to consider as you prepare for a great conversation.

### Participants

**1. Guest:** Who will be the focal point of your live broadcast? If you're doing a Q&A, it helps to have a person who people are dialing in to engage with. Is it the news editor, a politician, a celebrity, or the inventor of the latest and greatest technology?

**2. Moderator:** If your guest doesn't have much experience as a conversation facilitator, we recommend bringing in a moderator who can carry the conversation forward. The moderator's job is to call on other participants to get their opinions, help the host transition from one topic to another and ensure there are no awkward pauses in the conversation.

**3. Other participants:** Who are the other participants in the Hangout On Air? Are these fans of the host, excited Google+ users, etc.? Note that this product does not allow you to invite the public to join your Hangout On Air, e.g. have random strangers pop into your broadcast. You will need to add your participants to a circle and invite them at the time of the Hangout On Air.

The max number of people who can join the video call is 10. As your number of participants inches towards 10, you will need to moderate the discussion more to ensure everyone has a chance to speak and people aren't talking over one another.

### Topics

As you prepare for your Hangout On Air, it's good to create a document that outlines the "run of show". What are the topics you will be covering, and roughly how much time will be spent on each? Do you want a Q&A session at the end? You should communicate this to everyone in the Hangout On Air, including the participants.

At the same time, don't overscript your Hangout On Air, or it will come across as inauthentic. Find the sweet spot of providing some topical nodes to focus on, while also allowing for spontaneous conversation.

### Lastly, think about magical moments

How can you create magic moments in your Hangout On Air that will surprise and delight viewers, and make them eager to participate in future conversations? Is it that you're bringing together people from radically different backgrounds who would otherwise never have a conversation together? Is it that you are allowing normal citizens to ask a celebrity what her favorite breakfast cereal is? Is there a surprise guest who could pop in at any moment? What are the moments that people will take away from your Hangout On Air, and how can you optimize for these moments?

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## 2. Pre-Production

### Schedule your Hangout On Air

Choose a time and date that works for your audience. If you are hosting a nationwide or global Hangout On Air and broadcasting to the public, keep in mind time zones.

How long should your Hangout On Air be? We recommend anywhere between 15-45 minutes, depending on the number of people you have in the video call.

### Scout locations

- Make sure the bandwidth at the host and participant locations meet the technical requirements.
- Always use a wired connection and have a wireless connection as backup.
- Make sure everyone's location is in a quiet room or studio without background noise.
- Lighting is important. Please refer to page 3 of this document for tips.

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## 3. Announce your Hangout On Air

It's time to tell the world about your Hangout On Air. Here are a few tips.

### Create a teaser video

People respond to posts when they are accompanied with engaging content, like a video. To get more response, create a 15-30 second teaser video featuring the host that encourages people to join and watch the Hangout On Air. Here are examples from [Tyra Banks](#) and [David Beckham](#).

You may wish to create and upload to YouTube a custom thumbnail for your video advertising the Hangout On Air details. This will be displayed in your Google+ stream when you post the video.

### Call for participants

A common question we hear is, "how do I choose people to join my Hangout On Air? We encourage you to engage with your followers and generate excitement by calling for participants in your announcement.

In the initial post with the Hangout On Air details, announce that you are looking for people to join your Hangout On Air. Ask folks to respond to your post with a reason why they should be chosen, or to ask a thought-provoking question to the host.

Make it clear in your post that you are choosing a select number of folks to join, and that the public can only watch, but not join the Hangout On Air, when it's happening.

### Use a hashtag

Include a hashtag for your Hangout On Air, like #helpdeskHOA.

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## 4. Selecting and testing with participants

### If you decide to pre-select your participants, here are some tips:

**Initial screening:** Select the best responses to your initial post and click through to the profiles of these individuals to do a quick screening.

**Create a shortlist** of participants from the initial screening and schedule a quick video call with each one to ensure their bandwidth, audio, and lighting meet the tech requirements and to assess whether they come across well on camera.

**Create 2 circles of participants:** A top picks circle and a backup circle in case someone gets sick or can't join the Hangout On Air last minute.

### Do a Hangout On Air dry run with all participants

**Explain the run of show:** helps to set their expectations and keep the conversation on the right course.

**Check their tech:** enough bandwidth? lighting? audio?

**Remind them of Hangout On Air etiquette:** Participants should mute their mics unless the host talks to them, they should be at their computers to join the Hangout On Air at a specified time, and leave on a specific cue.

**Explain the Hangout On Air policies:** Be sure to tell your participants that they cannot stream content that they don't own or have a license to during the Hangout On Air. Also, remind participants what kind of conduct, language, etc., is appropriate during the Hangout On Air.

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## 5. Hangout day

- Post a reminder in the morning encouraging people to watch the Hangout On Air.
- Invite participants and get them into the Hangout On Air at least 15 minutes ahead of the scheduled time.
- Once you have invited the participants, remember to check the preview post in your stream to ensure the video looks good before you go live.
- If you want to embed the video or share the link, you must do this before you click "Start broadcast".
- When you're ready to go on air, click "Start broadcast" to broadcast to the world.
- Be sure to monitor your Hangout On Air and ask any participants who are streaming unauthorized third-party content to stop. This includes, but is not limited to, unlicensed music, pictures, and video. It is the Hangout On Air operator's responsibility to block users misusing third-party content.
- A warning will be given if we detect that copyrighted content is being broadcast live. Failure to stop broadcasting copyrighted material will result in the live broadcast being shut down and you will lose access to Hangouts On Air.

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## 6. Marketing after the Hangout On Air

### **Immediately after the Hangout On Air:**

Post the full-length recording of your Hangout On Air to Google+ and thank participants and viewers. Tell them to stay tuned for future Hangouts On Air.

### **A few days post the Hangout On Air:**

Post a 1-2 minute highlight reel of the best moments from the Hangout On Air. This is great marketing to get people who didn't attend the last Hangout On Air to attend your next one.