

# Web-Based Recording

## Introduction

This document provides an overview of approaches to recording video and/or audio conversations facilitated through web-based systems. Options described include both paid and free software apps for PC, Mac, and mobile operating systems. There are certainly other approaches beyond those mentioned here, and the selection below serves as a curated overview of a handful of systems rather than an all-inclusive survey.

## Things to know

When recording using a web-based platform, the interviewer has to consider multiple technical questions concerning not only their own setup, but for each interviewee's setup as well. While this can take a little extra time and problem solving, it can also become a relatively comfortable space to conduct an interview, as well as one of the only options in remote interviewing with the possibility of generating high-quality recordings.

When considering this option, inventory what is accessible to you and your interviewee(s) before you subscribe to something new. What are your priorities: high quality audio recording for [archives/access](#) or capturing a video exchange? Do you want to pair multiple systems to accomplish different goals? Also, you will want to consider [security](#) as web-based connections and recordings can be more vulnerable than in-person or phone interviews.

With more people connecting with colleagues and family over web-based platforms as a result of the COVID-19 pandemic, this option presents less of a barrier than it might have previously. For interviewees comfortable with computer-based systems and the thought of utilizing extra equipment, like external webcam setups, microphones, headphones, and even lighting, web-based recording can be a good option.

Remember when interviewing through web-based hardware to ensure all other audio and video playback devices are disengaged and any programs with audio notifications are closed. For other examples of logistical considerations for web-based interviewing, see the case studies for remote oral history interviewing using the Zoom platform:

- [NYC Covid-19 Oral History, Narrative and Memory Project Case Study](#)
- [Columbia Obama Project Zoom Interview Process](#)

## Platform Options

When deciding which web-based platform to choose, you will want to consider video conferencing or audio-only recordings. Or a combination of both where you use Zoom or Skype to create a virtual connection between you and your narrator, and use an additional recording software to record audio. With audio-only capture, you will also want to consider whether to create an uncompressed double ending recording or use a screen-capture of VoIP audio, which will be compressed on the narrator's end.

## Video Conferencing Options

Due to ease of recording, video technology, and cost, you might choose to record through web conferencing software. Most platforms have in-built options for recording audio and video. Regarding video, many VoIP services record video in Mp4, which meets preservation quality targets for many archival repositories. As for audio, since the software provider compresses the call, the result is lossy audio. If you are aiming for a higher quality audio, you may want to consider pairing multiple systems here--e.g. connecting through a video conferencing system like Zoom and simultaneously creating an audio file with a system like Zencastr or Cleanfeed (see Audio Options and/or Screen Capture options, below).

	<u>Zoom</u>	<u>Skype</u>	<u>WebEx</u>	<u>TheirStory</u>
<b>Cost</b>	Free, Pro (\$15/mo), Business (\$20/mo), Enterprise ( <a href="https://zoom.us/pricing">https://zoom.us/pricing</a> )	Free	Free, Starter (\$14/mo), Plus (\$18/mo), Business (\$27/mo)	Family (\$120/yr) Community (\$1,000-\$5,000/yr) ( <a href="https://www.theirstory.io/pricing">https://www.theirstory.io/pricing</a> )
<b>Recorded file format</b>	MP4 (video), M4A (audio)	MP4	Free version: Webex Recording Format (WRF), Paid version: MP4	MP4 video file and WAV audio file
<b>File storage</b>	Local (free), Cloud (paid option)	Records to cloud	Local (free), Cloud (paid option)	Cloud storage - Files stored on Amazon Web Services (AWS), downloadable, or can sync to Google Drive
<b>Internet connection requirement</b>	Yes, or cellular data (mobile devices)	Yes, or cellular data (mobile devices)	Yes, or cellular data (mobile devices)	Yes
<b>Accessibility Accommodations</b>	Closed captioning, Keyboard Accessibility, Automatic Transcript; Screen Reader Support.	Mostly focused on visual accessibility needs, full list of accommodations based on operating system used here: <a href="https://support.skype.com/en/faq/FA1">https://support.skype.com/en/faq/FA1</a>	Low vision and screen reader support. Find out more:	N/A

	<p>“Our products are compliant, with exceptions, with the following standards: WCAG 2.1 AA Standards, Revised Section 508 Standards, EN 301 549 Accessibility requirements. See more:<a href="https://zoom.us/accessibility">https://zoom.us/accessibility</a>.</p>	<p><a href="https://help.webex.com/en-us/cfojgdb/Webex-Web-App-Accessibility-Features">2371/what-accessibility-features-are-available-for-skype</a></p>	<p><a href="https://help.webex.com/en-us/cfojgdb/Webex-Web-App-Accessibility-Features">https://help.webex.com/en-us/cfojgdb/Webex-Web-App-Accessibility-Features</a></p>	
<b>Required skills</b>	N/A	N/A	N/A	Appears to be a very low threshold for entry
<b>Hardware Requirements</b>	Computer or mobile device with microphone and webcam	Computer or mobile device with microphone and webcam	Computer or mobile device with microphone and webcam	Computer or mobile device with microphone and webcam
<b>Hardware Recommendations</b>	External webcam, microphone, lighting, headphones	External webcam, microphone, lighting, headphones	External microphone, lighting, headphones	External webcam, microphone, lighting, headphones
<b>Pros</b>	<p>Vast recognition/ease of use, great buffering, video recording quality acceptable for repositories, many organizations/institutions have Business or Enterprise accounts, option to make <a href="#">separate audio</a> files for each user, offers separate audio and video file instead of video only, <a href="#">HIPAA-compliant</a></p>	<p>In recent years, Skype has been widely used for tasks such as remote job interviews, so there is often a familiarity with it</p>	<p>Many organizations/institutions have Business subscriptions</p>	<p>Designed for oral history work, you can generate a transcription of your recording as a downloadable Word document. Strong built-in project management capabilities.</p>

	<a href="#">version</a> exists, though pricey, end-to-end encryption in beta as of Summer 2020.			
<b>Cons</b>	Audio quality compressed format, time limits with free version	No separation of audio/video files, poor sound quality	Conversion of WRF to MP4 requires extra steps for PC and not possible for Macs. The built in ALC (Automatic Level Control) can impact recording by cutting off the first several words/phrases of the speaker as the system automatically increases recording level.	Not scalable for individuals or organizations who only need recording function and not the full service
<b>Additional information</b>	Free version only allows connection up to forty minutes and does not have cloud file storage option. Try to store recordings locally for privacy. Business Plan Cloud Recording Transcriptions are low quality and need vast editing. With the recent popularity of this platform, there is some history of Zoom calls being susceptible to hackers, see more on suggestions to	Skype has the ability to record computer to phone (landline), but you may need a paid account and some extra software/hardware to accomplish this (see tutorial here: <a href="https://resonaterecordings.com/2020/04/how-to-record-skype-calls/">https://resonaterecordings.com/2020/04/how-to-record-skype-calls/</a> )	N/A	This is a full-service system which offers more than access to the recording platform, they also provide interview services and training, storytelling workshops, and project management. Partners with <a href="#">Aviary</a> for access.

	offset this: <a href="https://blog.zoom.us/keep-uninvited-guests-out-of-your-zoom-event/">https://blog.zoom.us/keep-uninvited-guests-out-of-your-zoom-event/</a>			
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## Audio Options

Some web-based options create “double-ender” recordings and some create low compression audio files. “Double-ender” refers to audio on both ends of a ‘call’ recorded locally. This is a great option because the recording is not compressed through a VoIP or telephone call, and creates lossless audio, which is of a higher quality and better for preservation and access. A “double-ender” recording can be made manually through screen capture audio recording software, or through a web-based platform like Zencast or Squadcast.

	<u>Squadcast</u>	<u>Zencast</u>	<u>Cleanfeed.net</u>
<b>What</b>	Web-based, audio-only recording system, creates “double-ender” recording	Web-based, audio-only recording system, creates “double-ender” recording	Web-based, audio-only recording system
<b>Cost</b>	No free version. \$9/\$17/\$38 per month options. They offer education and non-profit discounts ( <a href="https://squadcast.fm/pricing/">https://squadcast.fm/pricing/</a> )	Free (Hobbyist), \$18 or \$20/month (Pro) ( <a href="https://zencast.com/pricing">https://zencast.com/pricing</a> )	Free and Pro (\$22-\$33/month) ( <a href="https://cleanfeed.net/">https://cleanfeed.net/</a> )
<b>Recorded file format</b>	44.1kHz/16-bit WAV or MP3	Free version: high quality MP3, paid version: 16-bit/44.1kHz WAV or high quality MP3	16-Bit/48kHz WAV
<b>File storage</b>	Automatically uploads the files to the SquadCast cloud and can be downloaded to local computer	Cloud (download from Zencaster server or save directly to Google Drive or Dropbox)	Unclear where file is stored while recording other than your browser retaining the recordings on disk, but the file is downloaded to a local computer immediately upon recording completion

<b>Internet connection requirement</b>	They recommend a network speed range of approximately 5-10 mbps up and down. You can run a speed test at <a href="http://www.speedtest.net">www.speedtest.net</a>	Ideal internet connection on both sides would be 1.5 Mbps up/down and hopefully 5 Mbps or more. You can run a speed test at <a href="http://www.speedtest.net">www.speedtest.net</a>	Yes
<b>Required skills</b>	Basic comfort level with troubleshooting microphone pairing	Basic comfort level with troubleshooting microphone pairing	Basic comfort level with troubleshooting microphone pairing
<b>Hardware Requirements</b>	Computer or Android mobile device (using a mobile browser app) with microphone and speakers/headphones	Computer or Android mobile device (using a mobile browser app),with microphone and speakers/headphones Operating Systems: <u>Mac OS</u> 10.10 or higher <u>Windows</u> 8.1 or higher Specs: 20GB+ of free hard disk space 4GB+ of RAM	Computer or mobile device (using a mobile browser app) with microphone and speakers/headphones
<b>Hardware Recommendations</b>	External microphone (optional webcam)	External microphone and headphones	External microphone and headphones
<b>Pros</b>	Option to open a video screen (not recorded) for better communication. Video can be disabled if needed.	Zencast records each participant separately into their own track and has an option to control location of cloud file storage	Free version is unlimited recording time. Host can see what kind of interface guests are using and double check microphone settings. Clean interface that's reportedly easy to use. Easy to keep files private.
<b>Cons</b>	Not compatible with iPad or iPhone. It isn't clear where the files are being stored or what happens to them after they are downloaded from the Squadcast server.	N/A	Only compatible to host with Chrome and Safari internet browsers.
<b>Additional information</b>	SquadCast records all participants in a recording session locally in separate tracks. Works best with	The free version of the software lets you record up to two people and limits you to eight hours of recording per	Not a "double-ender recording." Unlike some of the other solutions where the recording is made live (e.g. Zencast), there's no need to

	the latest versions of Chrome, but also supported by Firefox, Opera, Brave, and Edge.	month. During the COVID-19 Pandemic, Zencastr has lifted limits for free accounts (although recording format options still remain the same). Zencastr works best in Chrome or Firefox. Firefox users will need to switch to “Standard Browser Privacy” (change in “Settings” under “Privacy and Security”) and not use “Private Browsing Mode” in order for it to work. Video recording option currently in beta	sync up a recording at a later time. Free version is for single channel mix (both narrator and interviewer on one track). Cleanfeed offers a discounted rate for “individuals, educational, or charitable use.” This platform makes use of a built-in VoIP service. The audio will still be compressed through the Opus codec. Check out their <a href="#">FAQs</a> for tips.
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## Screen Capture Options

Records audio and video as it is played on a computer. Please note that if you are using one of these programs to record a video or phone call, the audio will be compressed even if the audio file you save on your recorder or export from audio software is a WAV file. Also, be mindful that this software is recording audio/video as heard/seen on screen, so audio quality of incoming narrator audio is important. Advanced users could create local “double-ender” recordings collaboratively with narrators, meaning the narrator must also record through some kind of screen-capture audio recording software. This will require some audio engineering to sync/merge interviewer and narrator tracks. Also remember if you are recording higher quality interviews, longer interviews will require more hard drive space.

	<u>Audacity</u>	<u>Quicktime (Mac)</u>	<u>XBox Game Bar (PC)</u>	<u>Open Source Broadcaster</u>
<b>What</b>	Multi-track audio editor and recorder for Windows, macOS, GNU/Linux, and others	Software that creates audio or video recordings of your computer screen	Default Windows software used for video recording screen space/programs	Audio and video screen recorder
<b>Cost</b>	Free	Free, comes with Mac desktops and laptops	Free	Free
<b>Recorded file format</b>	WAV, MP3, others	AIFF (audio) and MOV (video)	MP4	WAV (audio), MP4 (video)

<b>File storage</b>	Local (computer)	Local (computer)	Local (computer)	Local (computer)
<b>Internet connection requirement</b>	Yes	Yes	Yes	Yes
<b>Required skills</b>	Some audio engineering skills, relatively easy to use	N/A	N/A	Some audio engineering skills
<b>Hardware Requirements</b>	Computer or mobile device with microphone and speaker/headphones	Computer or mobile device (Mac based systems only) with microphone and speaker/headphones	Windows-based PC with microphone and speaker/headphones	Computer with webcam, microphone, speaker/headphones
<b>Hardware Recommendations</b>	External microphone, headphones	External microphone, headphones	External microphone, headphones	External microphone, headphones, webcam and lighting (if applicable)
<b>Pros</b>	Free, easy to use, exports as WAV	Comes standard with Macs, easy to use	Despite its name, Xbox Game Bar works with any PC program and is a great way to create a local copy of recordings made through various audio or video recording platforms	Lots of tutorials regarding use and choosing file formatting
<b>Cons</b>	With recent iOS Catalina update, some users having issues with Audacity	Not compatible with Windows systems	While created files are high quality, this does mean that longer recordings will require a good amount of hard drive space	N/A
<b>Additional information</b>	N/A	N/A	N/A	For Macs, latest download is for MacOS 10.13 or higher, but <a href="#">older versions</a> of the software are available