Carlin Celius, Carlos Aybar, Jared Sullin, Andhy Gomez

26 September 2020

Computer Science

Streaming app Report

What is live streaming? Live streaming is when a video is sent over the Internet in real-time, without first being recorded and stored. Today, TV broadcasts, video game streams, and social media videos can all be live-streamed. The content is created beforehand, stored, and then transmitted to the audience. It is the method of data transmission used when someone watches a video on the Internet, by delivering video files a little at the time, often from a remote storage location. Streaming is often used to transmit audios and videos over the internet in real-time, allowing recipients to watch and listen to the content while being transmitted and without having to download it to their device. One of the biggest advantages of streaming is that since the file is being transmitted a few seconds at the time, clients’ devices do not have to download the entire video before starting to play it.

There is a wide variety of live-streaming apps available to users, however, when one considers the preferred qualities, as we have done in our research, these are the superior and most popular streaming platforms: YouTube, Twitch, Periscope, and Instagram. YouTube is a free video-sharing website that makes it easy to watch online videos. You can even create and upload your videos to share with others. Created in 2005, YouTube is now one of the most popular sites on the Web, with visitors watching around 6 billion hours of video every month. SO why YouTube? “One reason YouTube is so popular is the sheer number of videos you can find. YouTube has many easily used tools to help you manage what you are streaming and create a better interaction between the host(streamer) and the viewers. Among, the best tools that it provides figure live chatting with the viewers and link sharing across other social media platforms. Users can schedule their live stream ahead and once the time hits, your stream will go instantly. You can access YouTube live streams by clicking the Live Tab on your YouTube Studio dashboard, where current, previous, and upcoming streams are stored. On average, 100 hours of video are uploaded to YouTube every minute, so there's always something new to watch! And you'll find all kinds of videos on YouTube—adorable cats, quirky cooking demos, funny science lessons, quick fashion tips, and a whole lot more.”

Twitch is an Amazon-owned live streaming platform with an audience of more than 2 million broadcasters and hundreds of millions of viewers a month. Although Twitch is widely used by gamers to stream their videogames while others watch them play live, it is often used to do other things such as live music sharing and cooking shows. First introduced in June of 2011, Twitch.tv focuses on music broadcasts, sports competition broadcasts, creative content, and video game play-troughs. The main reason why Twitch is so popular among its users is that it is extremely accessible and easy to stream. Starting a stream in this App is extremely easy and takes less than a minute, open the app on your device, tap your avatar, click on Go Live, it will ask you to enable your camera and microphone the first time you streaming, name your stream so that the viewers have an idea of what they will be watching, select a camera direction and sharing location, tap on Start Stream when you are ready to go live, and simply tap the screen to stop when you are finished.

Periscope is an American live video streaming app for Android and iOS developed by Kayvon Beykpour and Joe Bernstein and acquired by Twitter before launch in 2015. The main purpose of a periscope is an instrument for observation over, around, or through an object, obstacle, or condition that prevents direct line-of-sight observation from an observer's current position. In its simplest form, it consists of an outer case with mirrors at each end set parallel to each other at a 45° angle. SO in my opinion I think periscope would be the best application service for our streaming application because it works with both IOS and Android and it’s to be observed all around through an object and it relies on the purpose of creating this application.

Instagram is another platform that offers live streaming to its users. However, there are many more restrictions than the three platforms mentioned above. One of the problems with Instagram's lives is that if the user who is broadcasting has a private account, the audience is limited and only the people who follow that account can view the content being streamed. Yet, in the case of our application, it can be useful since our goal is for users to be able to live stream with their friends and family whenever they are in a dangerous situation and they need someone to witness what is happening.

To use Linux there are a certain amount of steps to take: First, fire up the Ubuntu installer and choose the settings that best fit your needs. You’ll probably want to set some static network settings since this is going to be used as a server. Second, Reboot the system after installation if it doesn’t do so automatically. Once the Ubuntu system boots up, install any available updates. Third, Head to the site and select the build for Linux. After the software launches, configure OBS with the settings that best match your hardware. Fourth, add a streaming source by clicking the + just under Source. Fifth, for testing sake, choose Display Capture, and enter a name for the source and click the OK button, and OBS will mirror your desktop and click the File tab and choose Settings. Lastly, In the Stream section, select set Stream Type to Custom and enter the following URL into the Server field.

The different free software products are OBS, Wirecast, Lightstream. OBS Software has strengths and weaknesses, among their strengths are: it allows for custom backgrounds, Scrolling and moving information, and Quick and efficient duplication of slides. Some of the limitations include: Sometimes it is difficult for an individual to move the tools that allow them to highlight the screen. Better compatibility with MAC OS make it less taxing on CPU/memory. Wirecast has many strengths, for instance, they provide a lot of advanced functionality, streams to multiple networks simultaneously, and can create an automated playlist. Some of the disadvantages are that it is expensive to use and Images can’t be rotated. Lastly, light stream has many advantages as well, such as free browser, cloud-based (portable), Simple to use & quick to set up and it uses less CPU Live chat support. Their limitations include 720p streaming and sound issues

References

* <https://www.cloudflare.com/learning/video/what-is-live-streaming/>
* <https://edu.gcfglobal.org/en/youtube/what-is-youtube/1/>
* <https://www.gamedesigning.org/gaming/beginners-guide-to-twitch/>
* <https://www.helpdeskgeek.com/> linuxtips