**Streaming and buffer**

**Streaming**

Streaming minimizes the amount of time it takes for a viewer to start viewing media over the Internet after starting a data transfer; whatever media you're watching is downloading while you watch. According to the BBC, "Streaming means listening to music or watching video in ‘real time’, instead of downloading a file to your computer and watching it later." Streaming is particularly useful when a media consumer's Internet connection speed would allow them to download media completely in less time than it would take to view. Websites and services often use streaming to distribute audio and video content; computer programs like [Microsoft Office](http://i.viglink.com/?key=535fb381c276aba2df16c56f4cdce13c&insertId=3fc4fc86e01addae&type=CD&exp=60%3ACI1C55A%3A8&libId=jw9u9s6j01021li9000DAbeg6tqbf&loc=https%3A%2F%2Fitstillworks.com%2Fdifference-between-buffering-streaming-27518.html&v=1&iid=3fc4fc86e01addae&opt=true&out=https%3A%2F%2Fwww.walmart.com%2Fsearch%2F%3Fquery%3Dmicrosoft%2Boffice&ref=https%3A%2F%2Fwww.google.com%2F&title=What%20Is%20the%20Difference%20Between%20Buffering%20%26%20Streaming%3F%20%7C%20It%20Still%20Works&txt=%3Cspan%3EMicrosoft%20%3C%2Fspan%3E%3Cspan%3EOffice%3C%2Fspan%3E) On Demand and various video games can also be streamed.

**Buffer**

The buffer is an allocated data storage space that contains information from the [stream](http://i.viglink.com/?key=535fb381c276aba2df16c56f4cdce13c&insertId=907f6ec3cd25a73d&type=S&exp=60%3ACI1C55A%3A8&libId=jw9u9s6j01021li9000DAbeg6tqbf&loc=https%3A%2F%2Fitstillworks.com%2Fdifference-between-buffering-streaming-27518.html&v=1&iid=907f6ec3cd25a73d&opt=true&out=http%3A%2F%2Fwww.amazon.com%2Fgp%2Fsearch%3Fie%3DUTF8%26camp%3D1789%26creative%3D9325%26index%3Delectronics%26keywords%3Dstream%26linkCode%3Dur2&ref=https%3A%2F%2Fwww.google.com%2F&title=What%20Is%20the%20Difference%20Between%20Buffering%20%26%20Streaming%3F%20%7C%20It%20Still%20Works&txt=%3Cspan%3Estream%3C%2Fspan%3E) that the viewer or user is likely to use. In the case of a media stream like music or a movie, the buffer contains upcoming content the viewer hasn't seen or heard yet. The buffer may also contain recently viewed content for fast rewinding. When streaming programs, the buffer contains parts of the program the user has called and will likely call.

**Buffering Improves Streaming**

The buffer is designed to hold upcoming information to provide the smoothest possible consumption experience. The buffer is designed to account for inconsistent data provision speed changes and temporary service loss. Additionally, buffering before starting a stream can provide the stream at a higher-quality than in real-time. For example, if an audio stream runs at 256kbps but a listener's Internet connection only runs at 200kbps, the stream could spend 30 seconds preloading the song before starting playback so the download completes at the same time the song playback ends. The same pre-loading concept works for a movie that can play back in 12mbps but the viewer only has an 11mbps download speed.

**Streaming without Buffering**

Streaming content without a buffer leaves the viewer at the mercy of a constant [data stream speed](http://i.viglink.com/?key=535fb381c276aba2df16c56f4cdce13c&insertId=06f9af90f71a6311&type=H&exp=60%3ACI1C55A%3A8&libId=jw9u9s6j01021li9000DAbeg6tqbf&loc=https%3A%2F%2Fitstillworks.com%2Fdifference-between-buffering-streaming-27518.html&v=1&iid=06f9af90f71a6311&opt=true&out=https%3A%2F%2Fwww.amazon.com%2Fdp%2F3540286071&ref=https%3A%2F%2Fwww.google.com%2F&title=What%20Is%20the%20Difference%20Between%20Buffering%20%26%20Streaming%3F%20%7C%20It%20Still%20Works&txt=%3Cspan%3Edata%20%3C%2Fspan%3E%3Cspan%3Estream%20%3C%2Fspan%3E%3Cspan%3Espeed%3C%2Fspan%3E). If a video stream has no buffer or too little buffer, it will start to get choppy, drop in quality or temporarily pause if anything happens to disrupt the connection as it goes from the server to the viewer's device. Things like the source server getting a temporary load increase, the Internet connection fizzling out, a small number of data packets getting lost in the transfer or even someone else on the same network browsing a website can all interrupt the feed.