

## Data Streaming Application for Smartphone using HLS

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**Abstract - Live streaming usually refers to the delivery of media content over the Internet immediately after its generation. Also it provide the temporary use of data which doesn't contain any memory space. Live Streaming over a Internet Service Provider (ISP) is very popular technology for delivering the media. Some time we don't need any data parentally here comes the aim of propose application is develop an android application which stream the data from mobile to PC without internet connection, when we say without internet it means we use hot-spot for connecting two devices. Usually for live streaming HLS(HTTP Live Streaming) or MPEG Media Transport (MMT) are well known protocols, which are mainly used for the iOS and provide low delay. Propose application is an android application where we use HTTP Live Streaming (HLS) for the live streaming. Propose application not only stream the live data but also stream the data which are available on the mobile storage. Video, audio, images etc data can be stream using this application user not only stream the data but also handle or manage data from sender side. HTTP Live Streaming(HLS) is also act like a medium to transfer a data from mobile to PC. Binding the Address of mobile which is mobile's static Internet Protocol(IP) and Real-time live streaming protocol provides low delayed video streaming feature by fragmenting media data into very small size chunks and having short signaling interval. RTSP overcome a drawback of HLS it provide low delay and high accuracy.**

**Key Words:** Streaming Media, HTTP live streaming (HLS), Low delay.

### 1. INTRODUCTION

In today's digital world sharing of the data from one device to another is very important aspect and some applications and technologies are available for that. Live streaming allows customer to stream the video, audio, images, etc. from one device to another. Live streaming provides a completely integrated end-to-end live video solution to the customer and also stream various size of video.

The verb "to Stream" refers to the process of delivering media in this manner the term refers to the delivery method of the medium, rather than the medium itself. It is alternative to downloading and buffering.

HTTP Live Streaming (HLS) , MPEG Media Transport (MMT) are popular protocols which are used for live streaming. HLS is invented by Apple so it's mostly used for the IOS. As per the project name Android Application so HLS is not applicable over there.

HTTP Live Streaming. HTTP Live Streaming (also known as HLS) is an HTTP- based media streaming communications protocol introduced by Apple Inc. as a part of their QuickTime, Safari, OS X, and iOS software. It works by fragmenting the media into a sequence of small media chunks and downloading each by each sequentially through HTTP-handshakes.

Here comes the new concept of streaming. HTTP Live Streaming Protocol (HLS) in propose application this protocol will be used which provide low delay. HTTP Live streaming protocols (HLS) is also act like a medium between sender and receiver. HTTP Live Streaming protocol which is mainly used in iOS here the same protocol we use in Android OS which provide low delay.

Propose application stream the static data also which is store on the memory card of mobile. In this, the sender is the mobile and the receiver is the computer or laptop.

## 2. RELATED WORK DONE

The application divided in some module such as :

### 1. Connection

Here we connect two devices without using an internet. But when we say wireless connectivity is mandatory that two devices should be on same network. So here we connect two devices with same network using portable hot-spot. Firstly we have to create a network using hotspot and then the second device will connect to that network.

### 2. Establish Server

In propose system server which is HTTP server get establish on mobile. The main role or

responsibilities are fetching the data which is already store in mobile memory. The second one while stream the live data store them in memory on specified path. The third one which is most important that stream data with low delay.

### 3. Streaming

After establishing server streaming get starts. While stream the data server also maintain the buffer at the server side. There is no need of client side memory and memory management. Server side buffer management is very effective 0.05sec is time where he store the data and the same time stream the data.

when connection establish between two devices successfully one Hyper Text Markup Language (HTML) file get loaded on the browser at client side. Which shows the streamed data to user.

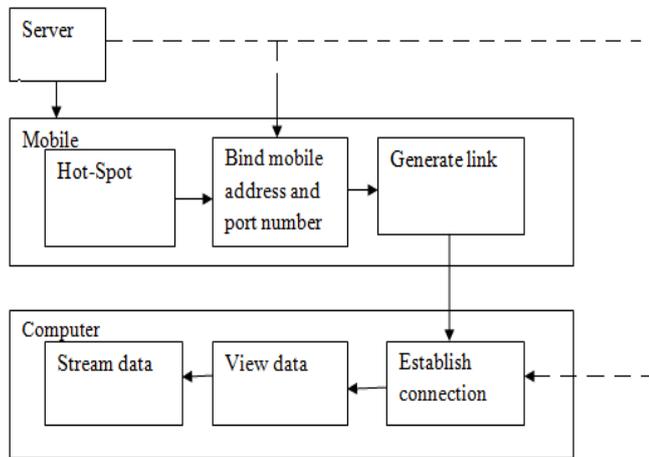
## 3. PROPOSED METHOD

In this paper we introduced the offline streaming with the HTTP Live Streaming (HLS) which is mostly used in the iOS systems.

The given figure introduce the system architecture of the propose application. Propose system contain server and client and the server is get install or establish on the mobile.

The architecture also introduce the working of each and every part how the link get create and how the two devices get connected with each other

### 3.1 SYSTEM ARCHITECTURE



**Fig 1. System Architecture**

The application ‘An Android Application for Live Streaming’ is going to use for the live streaming from smart phone to the computers or tabs. In this application firstly it requires to get the connection between the sender and receiver. After the connection establishment the server binds the mobile address and the port no of the HTTP server, then it creates the new link. Through this link the sender and the receiver gets connected.

After establishing the connection between the sender and the receiver. Whatever the data available in the mobile show to the user. The data may contains audio, video, images and games etc.

After all these operations the streaming of the data gets start as per the user’s interest or need select the data.

#### User-interface:

The user interface divided between two part Android application and the Hyper Text Markup Language (HTML) file.

Android application which turn on the hotspot, create link and show the data. Now HTML file which get load on the browser side when the connection done successfully.

### 4. CONCLUSION

Live Streaming is another option for downloading and buffering which is going to achieved in the proposed application. User can view the data without wasting the memory storage. This application will help to android user to stream the various size of data.

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