ABSTRACT

Video streaming services are now a necessity of many people as a means of entertainment or learning media. Media server is a device or program that stores and shares multimedia files that can be used in video streaming services. Streaming services work in real time so a protocol is needed that can transmit data smoothly without any problems.

In this Final Project a Docker-based media server is implemented using the HLS (HTTP Live Streaming) and MPEG-DASH (Dynamic Adaptive Streaming over HTTP) protocol. HLS and MPEG-DASH are streaming protocols that can divide data into several segments before being transmitted to the client. The web browser and media player that will be used to play streaming video are Google Chrome and VLC.

Based on the measurement and processing results Docker-based data media server is expected to reduce CPU and memory usage. Retrieval of CPU and memory data is used by creating scripts using Bash (Unix Shell) or commonly called bash scripts. The use of the HLS and MPEG-DASH protocols is expected to reduce buffering when streaming video. From the two protocols, the transition will be seen, which one is better used for streaming video when the network connection is unstable.

Keywords: Media Server, HTTP, HLS, MPEG-DASH, Docker.