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.

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