

Analisis Performansi *Multipath TCP Scheduling* dan *Congestion Control* Pada *Video Streaming* di Jaringan MPTCP

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Abstract

TCP is a reliable protocol that work on one communication flow to receive and send data, then if one way is disconnected, so communication will be disconnected. The fact is in a device like smartphone and laptop has multiple interface network which allows to send data by multiple network interfaces simultaneously. Multipath TCP is a development from TCP which can improve performance a device to maximize resources that owned, by send data simultaneously through multiple network interface so that will be impacted to throughput that got by user and improve connection endurance from network failure. MPTCP has scheduling features, some of them are Minimum Round Trip Time dan Round Robin. These two kinds of scheduling has different ways of working. MPTCP also has several kinds of congestion control algorithm like Cubic, wVegas and Balia. With mechanism and performance like this, MPTCP can give better result on real time service like streaming video where it be enjoyable real time service recently. In this research had done testing about differences of performance from each scheduling that had mentioned above and from each scheduling mechanism that would be combined with Cubic, wVegas, and Balia congestion control in running service of streaming video. From testing results, better throughput value was got by Cubic either using minimum round trip time and round robin in value of 9,238 and 9,253 Mbps. Then followed by wVegas and Balia. For delay, Cubic got better value for minimum round trip time and round robin in value of 0,50 and 0,51 ms. Then followed by Balia dn wVegas. For packet transmission, wVegas got better value for minimum round trip and round robin in value of 748 and 830 packet. Then followed by Cubic and Balia.

Keywords: multipath TCP, scheduling, congestion control, video streaming
