

# Implementasi dan analisis kinerja Routing Protocol B.A.T.M.A.N-ADV (Better Approach To Mobile Ad-Hoc Networking Advanced) pada jaringan berbasis Wireless Mesh = B.A.T.M.A.N-ADV (Better Approach To Mobile Ad-Hoc Networking Advanced) Routing Protocol implementation and performance analysis on Wireless Mesh network

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## Abstrak

Seiring dengan berkembangnya teknologi wireless, semakin berkembang pula berbagai bentuk implementasinya, salah satunya adalah wireless mesh network. Routing Protocol Better Approach To Mobile Ad-hoc Networking Advanced (B.A.T.M.A.N-Adv) adalah routing protocol wmn yang cukup reliable dan saat ini sudah banyak dikembangkan secara opensource. Pada penelitian ini, B.A.T.M.A.N-Adv diimplementasikan pada 4 buah AP yang menjalankan firmware opensource OPENWRT. 1 buah laptop, dan juga 1 buah PC juga digunakan sebagai alat untuk pengambilan data. Berdasarkan hasil pengujian, besar throughput batman-adv menurun hingga 82,15%. Besar jitter meningkat hingga 2528,46%, dan packet loss hingga 2070,42%, delay mencapai hingga 164% dan waktu pengiriman data meningkat hingga 21 detik. Pemakaian memori dan CPU pada batman meningkat 3,82% dan 20,7%.

<hr>Along with the development of wireless technology, various forms of it's applications also have been developed, including wireless mesh network. Better Approach To Mobile Ad-hoc Networking Advanced (B.A.T.M.A.N-Adv) is a routing protocol which is reliable enough and until today it has been much developed opensourcely. In this study, B.A.T.M.A.N-Adv is implemented on four Access Point which run OPENWRT Barrier Breaker opensource firmware. One laptop and one Personal Computer are also used as tools to collect the data. Based on the result of the experiment, batman-adv's troughput decreased 82,15%. Jitter increased 2528,46%,, packet loss increased 2070,42%, delay increased 164%, and the duration to send data increased 21 second. CPU memory usage under operation of batman-adv firmware increased 3,82% and 20,7%.