

ABSTAK

Delay Tolerant Network (DTN) adalah sebuah jaringan *wireless* yang tidak memerlukan infrastruktur dalam pembentukannya. Pada penelitian ini penulis menguji unjuk kerja protokol *social-aware* berbasis konten menggunakan ONE Simulator. Parameter unjuk kerja yang digunakan adalah *delivery probability*, *overhead ratio*, dan *latency*. Parameter yang akan digunakan pada setiap pengujian adalah penambahan jumlah node, penambahan durasi TTL (*time-to-live*), dan penambahankapasitas penyimpanan (*buffersize*).

Hasil pengujian menunjukkan protokol *content-based social aware* semakin baik apabila jumlah *node*, dan kapasitas *buffer* ditambah, karena *noderelay* memiliki lebih banyak peluang untuk menyampaikan pesan ke *nodedestination*. Terlihat dari hasil *delivery probability* dan *latency* pada jaringan. Sedangkan *overheadratio* meningkat karena *original message* terus di-generate oleh *source* yang kemudian akan didistribusikan di dalam jaringan.

Kata kunci: *Delay Tolerant Network, social aware, social networks, spray and wait, spray and focus, delivery probability, overhead ratio, latency.*

ABSTRACT

Delay Tolerant Network (DTN) is a wireless connection which does not need infrastructure in its formation. In this research the writer test the performance of a content-based social-aware routing protocol in opportunistic network using ONE SIMULATOR. Performance matrix used are delivery probability, overhead, delay, and drop. Parameter used in every test are increasing the number of nodes, increasing the number of message copy, additional TTL (time-to-live), and addition of buffer capacity.

The test result show that spray and focus routing protocol is better if the number of node, number of message copy, and buffer capacity is increased because the relay node has more opportunities to delivered the messages to the destination. Visible from the delivery probability and delay in the network. While overhead and drop becomes increases because the original message continues to be generated by source that will be distributed in the network.

Keywords: Delay Tolerant Network, social aware, social networks, spray and wait, spray and focus, delivery probability, overhead ratio, latency.