ABSTRACT

VANET can't establish end-to-end communication between the source and destination node because of limited coverage and fast movement. Delay Tolerant Network (DTN) is one of network that can be used as a solution. If the network is disconnected while on the way the data will be stored on the last node so it is not necessary to restart connection.

On Delay Tolerant Network, bandwidth and buffer used are very limited. As a result of these limitations, the overall DTN network performance is determined by the scheme and the type of routing that is used. MaxProp protocol uses several mechanisms in an effort to improve the delivery rate and minimize latency delivered by the package. MaxProp give higher priority to the new package, and also an attempt to prevent the receipt of the same package twice. MaxProp has poor performance with a small buffer.

The simulation results showed that a large buffer for the location Maxprop router simulation at Buah Batu Street in Bandung City is best at the value of 15 MB buffer. Based on the two test scenarios, 15 MB buffer has a good performance compared to most large buffer 5 MB and 10 MB. The greater the transmitted data packets will generate greater value of packetloss and latency. Otherwise, it will generate smaller value of packet delivery ratio. The greater node will generate random value of latency, packetloss, and packet delivery ratio. We can't predicted the value of latency, packetloss, and packet delivery ratio because the random movement of node.

Keyword : Delay Tolerant Network, MaxProp, latency, packetloss, packet delivery ratio

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