

A simulation engine model analysis for reliable multicast protocol in ad hoc network

ABSTRACT

Traditionally, reliable multicast protocols are deterministic in nature. It is precisely this determinism which tends to become their limiting factor when aiming at reliability and scalability, particularly in highly dynamic networks, e.g., ad hoc networks. In multicast communication, many reliable multicast schemes were studied in order to overcome packet losses in the network. This paper describes our effort to build a detailed simulation model for the reliable multicast transport protocol based on measurements taken from a variety of mapping sources and tools. We identify key attributes of a network design to develop the simulation engine model. The attributes of the model, are discussed in details to ensure the features of the protocol those are captured by the simulator. Finally, the results acquired have proven the ability of the simulator to provide a good analysis tool.

Keyword: Ad Hoc network; Reliable Multicast; Simulator Engine