IMPLEMENTING COMPARATIVE ANALYSIS OF WIRELESS LAN SECURITY PROTOCOLS IN NS2

VINAY BHATIA[1], DUSHYANT GUPTA[2] & H. P. SINHA[3]

[1,3]Department of Electronics & Communication Engineering, M.M University, Mullana, India

[2]Department of Electronic Science, University College, Kurukshetra University, Kurukshetra, India

ABSTRACT

Wireless technology continues to play an emergent role in modern networks. Nowadays wide variety of wireless devices having various features is available for the users at competitive costs. This paper focuses on analytical study of one of the widely used networks, namely Wireless Local Area Network (LAN). There has been a tremendous increase in use and installation of wireless LANs these days. It is anticipated that the number of these LAN networks will increase further in the years to come. However, with the widespread utility of networks, security and performance has still been a bottleneck while communicating over wireless LANs. In this work, we have carried out a comparative study of throughput of wireless LANs implementing different security algorithms. Specifically performance analysis in terms of throughput is done, suiting Small-Office-Home-Office (SOHO) networks when WEP and WPA security algorithms are employed. In addition a complete analysis has also been done for these networks having different number of nodes.

KEYWORDS: Security, SOHO, Throughput, Wireless LAN, WEP, WPA