A Review of the Parameters Used in Gateway Selection Schemes for Internet Connected MANETs

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Abstract : The wide use of the internet-based applications bring many challenges to the researchers to guarantee the continuity of the connections needed by the mobile hosts and provide reliable Internet access for them. One of proposed solutions by Internet Engineering Task Force (IETF) is to connect the local, multi-hop, and infrastructure-less Mobile Ad hoc Network (MANET) with Internet structure. This connection is done through multi-interface devices known as Internet Gateways. Many issues are related to this connection like gateway discovery, hand off, address auto-configuration and selecting the optimum gateway when multiple gateways exist. Many studies were done proposing gateway selection schemes with a single selection criterion or weighted multiple criteria. In this research, a review of some of these schemes is done showing the differences, the features, the challenges and the drawbacks of each of them.