Effect of probability function on packet loss in RED queue of wired networks

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Abstract: This topic focuses on studying the impact of probability functions on packet loss in RED (Random Early Detection) queues of wired networks. The context of the topic stems from the practical necessity of optimizing network performance. The objective is to build and evaluate a theoretical model as well as validate it through practical experiments regarding the stability and performance of the network system when applying different probability functions. The research methodology includes both a theoretical approach for mathematical analysis and application implementation to verify the results. The expected outcome is to contribute to the scientific understanding of network load management while providing practical solutions for network administrators.

Keywords: Probability function, Packet loss, RED queue, Wired network, Application testing