Abstract

An application of improving the end-to-end packet loss estimation has been presented in this application oriented research paper along with the simulation results in Java environment. Measurement and estimation of packet loss characteristics are challenging due to the relatively rare occurrence and typically short duration of packet loss episodes. While active probe tools are commonly used to measure packet loss on end-to-end paths, there has been little analysis of the accuracy of these tools. The objective of our simulation study done in java language is to understand how to measure packet loss episodes accurately with end-to-end probes using software approach. The recent studies show that the standard Poisson-modulated end-to-end measurement of packet loss accuracy has to be improved. Thus, here, in this paper we demonstrate the application of the algorithm for packet loss measurement to overcome the deficiencies in standard Poisson-based tools. We also find the transfer rate during the simulation study. We evaluate the capabilities of our methodology by developing and implementing a prototype tool, called BADABING. These simulation experiments done in the
java environment demonstrate the trade-offs between impact on the network and measurement accuracy. BADABING reports loss characteristics are far more accurately than traditional loss measurement tools. The simulation results shown in this research paper shows the efficiency of the method developed which can be further used for a number of wide range applications.

Reference

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Index Terms

Computer Science Networks

Key words

Network Congestion BADABING
Network Probes
Packet Loss
Active Measurement