

Available Bandwidth Estimation in Computer Networks Using Single Probing Train

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Abstract

Available bandwidth has a significant impact on the performance of many applications that run over computer networks. Therefore, many researchers pay attention to this issue through the study of the possibility of measuring the available bandwidth, and disseminating tools for measuring this metric. We present a method to estimate the available bandwidth for a path, by building, sending, and receiving probe packets. We measure the time gap between probing packets before sending and after receiving, then we estimate the available bandwidth. This method relies on an easy and fast algorithm. Applications can use this method before they start exchanging data over the Internet.

Keywords: Available Bandwidth, Probing train, Probing packet, Probing rate, Cross-Traffic

For the abstract in Arabic see pages (369-380).

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