

A comprehensive review on hybrid network traffic prediction model

ABSTRACT

Network traffic is a typical nonlinear time series. As such, traditional linear and nonlinear models are inadequate to describe the multi-scale characteristics of traffic, thus compromising the prediction accuracy. Therefore, the research to date has tended to focus on hybrid models rather than the traditional linear and non-linear ones. Generally, a hybrid model adopts two or more methods as combined modelling to analyze and then predict the network traffic. Against this backdrop, this paper will review past research conducted on hybrid network traffic prediction models. The review concludes with a summary of the strengths and limitations of existing hybrid network prediction models which use optimization and decomposition techniques, respectively. These two techniques have been identified as major contributing factors in constructing a more accurate and fast response hybrid network traffic prediction.