

Forecasting Network Activities Using ARIMA Method

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This paper presents an approach for a network traffic characterization by using an ARIMA (Autoregressive Integrated Moving Average) technique. The dataset used in this study is obtained from the internet network traffic activities of the Mulawarman University for a period of a week. The results are obtained using the Box-Jenkins Methodology. The Box-Jenkins methodology consists of five ARIMA models which include ARIMA (2, 1, 1) (1, 1, 1)¹², ARIMA (1, 1, 1) (1, 1, 1)¹², ARIMA (2, 1, 0) (1, 1, 1)¹², ARIMA (0, 1, 0) (1, 1, 1)¹², and ARIMA (0, 1, 0) (1, 2, 1)¹². In this paper, ARIMA (0, 1, 0) (1, 2, 1)¹² was selected as the best model that can be used to model the internet network traffic.