# Monitoring, Analysis and Modeling of HTTP Requests to Facebook from a Campus LAN

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In this study we monitored, analysed and modeled Hypertext Transfer Protocol (HTTP) requests generated from a campus Local Area Network (LAN) to a social network site known as Facebook. We designed and implemented a measurement infrastructure to capture network traffic traces and to store in a data collection system. To analyse the data traces and to model the network traffic, we mainly focused on the statistical parameter TCP session inter-arrival times.

The parameter TCP session inter-arrival times are analysed and fitted with standard distributions such as Exponential, Gamma, Lognormal, Weibull and Pareto distributions. The data captured in working hours between 9:00 A.M. and 4:00 P.M. in a day was first considered for analysis. Then we continued the analysis by splitting smaller time periods such as 10 minutes, 20 minutes, 30 minutes and one hour. We found that, for traffic chunks of less than or equal to 30 minutes time period, the empirical TCP session interarrival times of HTTP requests generated from campus LAN to facebook tend to Gamma distribution.

Keywords: Traffic modelling, TCP session, Gamma distribution, Facebook