Analysis of Grade of Service (GoS) In Mobile Communication Using GoS Calculator

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"In the name of ALLAH S.W.T, The Most Gracious and The Most Merciful. Peace be upon the Holy Prophet, Muhammad S.A.W."

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ABSTRACT

This project implemented Grade of Service (GoS) calculator using MATLAB software in order to calculate the probability of a call being blocked or delayed. The aim of this project is to analyze the data that we get from the calculator by using three different formulas. The calculator used Erlang B formula to obtain the value of GoS and to get more accurate value; extended Erlang B formula was applied. From the calculated values, comparison between Erlang B and extended Erlang B was made. The probability that a call is queued and the average call waiting time, also known as the Average Speed of Answer (ASA) was calculated using Erlang C formula. The various values obtained from Erlang C calculator can tell how long subscribers need to wait before they can make a call during peak hours. All the calculated values were graphically plotted using Microsoft Excel.

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