

An Algorithm Based on Control Indexes to Increase the Quality of Service on Cellular Networks

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Abstract : Communication plays a key role in today's world, and to support it, the quality of service has the highest priority. It is very important to differentiate between traffic based on priority level. Some traffic classes should be a higher priority than other classes. It is also necessary to give high priority to customers who have more payment for better service, however, without influence on other customers. So to realize that, we will require effective quality of service methods. To ensure the optimal performance of the network in accordance with the quality of service is an important goal for all operators in the mobile network. In this work, we propose an algorithm based on control parameters which it's based on user feedback that aims at minimizing the access to system transmit power and thus improving the network key performance indicators and increasing the quality of service. This feedback that is known as channel quality indicator (CQI) indicates the received signal level of the user. We aim at proposing an algorithm in control parameter criterion to study improving the quality of service and throughput in a cellular network at the simulated environment. In this work we tried to parameter values have close to their actual level. Simulation results show that the proposed algorithm improves the system throughput and thus satisfies users' throughput and improves service to set up a successful call.

Keywords : quality of service, key performance indicators, control parameter, channel quality indicator

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