Abstract

The aim of this paper is to study the effect of traffic differentiation and priority scheduling in providing Quality of Service (QoS) for e-learning applications in Universal Mobile Telecommunication System (UMTS) networks. A simulation model of the UMTS network has been developed and used to study performance of e-learning applications as perceived by users. Priority scheduling is used to prioritize traffic between e-learning and other conventional users according to their QoS requirements. Simulation results show that a UMTS network configured with traffic differentiation and priority scheduling can deliver e-learning services with page response time of less than 4 seconds. This performance is within the acceptable values of web-based applications quality of service.

References

Index Terms

Computer Science

Information Sciences

Keywords

e-learning, UMTS, Quality of Service (QoS), Traffic Differentiation, Priority Scheduling.