Abstract

Data Envelopment Analysis (DEA) is an operational research tool that is used for measuring the performance efficiency of an algorithm or organization. In this paper, DEA is applied on the simulation results of an Improved Network Coding Algorithm (INCA) with two and three performance in order to establish the performance efficiency of the two algorithms in terms of bandwidth utilization during video conferencing over a wireless network. Most researches which focus largely on determining the effectiveness of the INCA in terms of bandwidth consumption during video conferencing. However, this approach which uses DEA, the simulation results showed that the INCA with two parameters is the most cost-Efficient algorithm in terms of performance than the INCA with three parameters.

References

Determination of Efficient bandwidth utilization During Multicast using Data Envelopment Analysis

analysis: Theory, methodology, and applications: Springer Science & Business Media.


14. A. A. Ajibesin, N. Ventura, A. Murgu, and H. A. Chan, (2014) "Data envelopment analysis with slacks model for energy efficient multicast over coded packet wireless networks,".


Index Terms

Computer Science

Networks

Keywords

Data Envelopment Analysis, Efficiency, Constant Return to Scale, Bandwidth and Decision Making Unit.