Abstract

Investigator : Asst. Prof. Dr. Sanon Chimmanee, Rangsit University

E-mail Address : sanon.s@rsu.ac.th, schimmanee@yahoo.com

PACS application over the Internet is one of the poplar telemedicine. Traffic Engineering (TE) approach is mainly proposed to utilize networking resources. In order to enable TE to work effectively, a criterion of PACS metric is needed to evaluate the quality of end-to-end path over the Internet. This paper presents a novel PACS metric that takes the number of "Qualified Flow: QFlow" as the criteria to evaluate the end-to-end path capability for PACS flows. The proposed metric is based on the regression methodology. The proposed metric helps TE to make a decision for routing or/and forwarding at the end path. Additionally, Internet and PACS traffic pattern is needed to analysis for the proposed method. Therefore, Internet traffic pattern of three ADSL operators was investigated for one month and Actual PACS flows including about 20 million packets were captured. The experiment results proved that the proposed method give the high accurate estimation, which is very useful for Telemedicine over the Internet. This proposed protocol should be implemented on the Load Balancer or Router in the future work.