Fine Grained Classification of Internet Multimedia Traffics

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***Abstract*—For the purposes of efficient network resource management and QoS (Quality of Service) support of different multimedia services, this paper proposes a fine grained classification scheme for Internet multimedia traffics using a novel low-complexity feature selection method based on coefficient of variation. We focus on web-browsing and network video services in this work. A number of QoS and network resource requirements related statistical features of these applications are studied and validated by their effectiveness in web-browsing and video traffic classification. This scheme classifies multimedia services with the combinations of these statistical features. Experiments are performed on a large scale real network multimedia traffic data. The results show that the proposed method can achieve better classification performance in contrast to existing methods.**

***Keywords*—Traffic classification; QoS; web browsing; video; coefficient of variation; flow statistics**

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