Keynote Speaker

Improve Contents Access by In-Network Caching and Multipath Transfer

Jinlei Jiang^{a,*}

^aTsinghua University, China

*Corresponding Author: jjlei@tsinghua.edu.cn

Abstract

Along the exponential growth of data, the Internet has changed its role from mediating communications between remote hosts into connecting users with contents. However, the current TCP/IP networks cannot fulfill contents delivery very well. To deal with the problem, in-network caching and multipath transfer are suggested, with the basic idea of putting data close to users and utilizing network resources efficiently. Nevertheless, they are far from perfect. For example, most in-network caching methods place contents in the network opportunistically due to the problem complexity, resulting in low cache utilization and high access latency, and cooperative multipath content transfer from several sources is generally untouched. In this talk, I will introduce our recent progress of in-network caching and multipath transfer for information-centric networks, and discuss (1) how to do in-network caching without global network information to reduce access latency as much as possible, and (2) how to retrieve content from multiple sources in a cooperative and parallel way so as to maximize the network throughput.