

GRADUATE COLLOQUIUM:



Named Data Networking: An Internet Architecture for the Future

Friday, October 23, 2015

12:30 – 1:30 PM, DH 351

Christos Papadopoulos, Ph.D.

ABSTRACT:

The current Internet names the hosts, leaving it to the application to locate the host with the desired data. However, with the emergence of technologies such as CDNs and the cloud, and trends such as mobility and IoT, the need to associate data with an IP address has become a hindrance. This misalignment requires enormous corrective effort at the expense of application complexity and robust security.

Named Data Networking (NDN) transforms the current network of hosts into a network of data objects. In the process, application complexity is substantially reduced and data is easily secured. A named data network is an efficient content distributor that can natively support communication models such as multicast and anycast, routing models such as multipath and data operations such as publishing, discovery and caching. In general, NDN offers a network service model that aligns better with user needs, building a stronger foundation for current and future applications.

This talk will present NDN and some illustrative applications.

BIO:

Christos Papadopoulos is currently a professor at Colorado State University. He received his Ph.D. in Computer Science in 1999 from Washington University in St. Louis. In 2002 he received a NSF CAREER award to explore router services as a component of the Internet architecture. He currently works on future Internet architectures, network security and measurements. Active projects include Named Data Networking (NDN), Supporting Climate Applications over NDN, Netbrane, PREDICT, Retro-Future, WIT-II and Making Internet Routing Data Accessible to All. He is a senior IEEE member and has served on numerous ACM and IEEE conference program committees.



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