THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering
Seminar

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1) Web 2.0 Traffic Measurement – Analysis on Online Map Applications

2) The Transition to Next Generation Internet: From IPv4 to IPv6

Date : **15 July, 2009 (Wed.)**
Time : **10:30am-12:00noon**
Venue : **Room 1009, William M.W. Mong Engineering Building**
The Chinese University of Hong Kong

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1) **Web 2.0 Traffic Measurement – Analysis on Online Map Applications** *(by Prof. Ke XU, Associate Professor, Department of Computer Science, Tsinghua University)*

Abstract
In recent years, web based online map applications have been getting more and more popular, such as Google Maps, Yahoo Maps. Many new Web 2.0 techniques such as mash-up and AJAX were adopted in these map applications to improve user experiences. But few researches have been done on online map applications. In our research, we focus on some of the traffic features of online map applications which previous studies have not covered. The main contributions of this paper are: 1) We have separated map application traffic from general HTTP traffic in a campus network and capture it. Base on the captured traffic, we give the traffic overview. 2) Real time vehicle traffic query is an important function for map applications. We give some statistical results on this topic. 3) The mash-up characteristics of Google map traffic have been analyzed using a new method proposed in this paper. The same method could be applied to other mash-up analysis works. 4) Request distributions and web cache replacement policies for map applications are studied in this paper, which are important for CDN based accelerating solution design. The contributions in this paper can help us optimize the future web application designs. Several topics are proposed in this paper, such as map application, mash-up and real time vehicle traffic query. We hope our study can trigger some interests and further discussions in these topics.

Biography
Professor XU was born in Jiangsu, P.R.China, in 1974. He received the B.S., M.S. and Ph.D. degrees in computer science from Tsinghua University, China in 1996, 1998 and 2001 respectively. Currently he is an Associate Professor in the department of computer science of Tsinghua University. His research interests include next generation Internet, switch and router architecture, P2P and overlay network.

2) **The Transition to Next Generation Internet: From IPv4 to IPv6** *(by Prof. Yong CUI, Associate Professor in Tsinghua University)*

Abstract
INTRO: Although the basic protocol of the Next-Generation Internet (NGI) was defined as IPv6 over 10 years ago, the transition from the current IPv4-based Internet to IPv6-based NGI was still a long way to go. With the growth of Internet, it is predicted that IANA will exhaust its IPv4 address pool on 17-Jun-2011. Therefore, IPv6 networks and IPv6 applications will be widely used in the coming days. However, as different address families, IPv4 and IPv6 are difficult to inter-connect or even long-term coexist in the complex topology of Internet. After giving some basic IPv6 transition technologies in the literature, the talk will present the active work in IETF for IPv4/IPv6 coexistence. At last, the IPv6 progress in China will also be introduced.

Biography
Yong Cui, Ph.D., Associate Professor in Tsinghua University, Council Member in China Communication Standards Association (CCSA). He directed several national R&D projects, funded by Chinese Next Generation Internet Plan (CNGI), National Natural Science Foundation of China (NSFC), and Development Plan of the State High Technology Research of China (863). He also participated as a major player in a project funded by National Basic Research Plan of China (973 Program). Having published more than 90 papers, he also holds more than 20 patents. His major research interests include the next-generation Internet, mobile wireless Internet, distributed routing protocols and quality of service. He is also the co-author of RFC 5565 and some IETF Internet Drafts in the field of IPv4/IPv6 coexistence.

** ALL ARE WELCOME **

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