Think Different: Serverless Applications via Named Data

时间:	2012 年 6 月 15 日星期五上午 9:00-10:30
地点：	清华大学 Fit 楼 1 区 312
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Abstract

Multi-user applications are commonly implemented using a centralized server. In this talk I will describe a new design for multi-user chat applications, Chronos, that works in a distributed, serverless fashion over Named Data Networking. In Chronos, all participants share their views by exchanging the cryptographic digests of the chat room data set. A newly generated message causes a change of the digest at the message originator, informing other participants to retrieving the new data. This completely distributed design eliminates the single point of failure and traffic concentration problems in server-based implementations. We believe that the basic approach of replacing centralized servers by distributed data synchronization can be applied to a variety of distributed applications.

Biography

Lixia Zhang received her Ph.D in computer science from MIT and joined Xerox Palo Alto Research Center as a member of research staff. She is now a professor in the Computer Science Department of UCLA. In the past she served as the vice chair of ACM SIGCOMM, member of the editorial board for the IEEE/ACM Transactions on Networking, member of the Internet Architecture Board, and co-chair of the Routing Research Group under IRTF. She is a fellow of ACM and IEEE. She received IEEE Internet Award in 2009 and holds UCLA Postel Chair in Computer Science.