



Events

[Current Events](#)[Lectures ▾](#)[Events Archive ▾](#)

CCT Colloquium Series

Living on the Edge: Broadening the Vision of Cloud Computing**Jon Weissman, University of Minnesota**

Associate Professor

Johnston Hall 338
March 29, 2010 - 11:00 am**Abstract:**

The standard model of Cloud Computing posits a collection of a few largely centralized data-centers where data and computing are consolidated exploiting locality and economies of scale. This localization, however, introduces two potential problems: (1) it presumes the cost of moving data into the Cloud can be amortized, and (2) it has limited ability to exploit end-user locality. For applications that manipulate large geographically-dispersed and dynamically changing datasets, or that demand frequent response-sensitive end-user interaction, the localized Cloud may be ineffective. In this talk, we present a new vision of Cloud Computing that addresses these shortcomings. We propose the use of edge computers in two novel ways. For problem (1), we propose Nebulas, a Cloud comprised of edge computers located across the Internet. We show how several classes of applications may be better suited to this new Cloud model. For problem (2), we describe how a proxy network comprised of edge computers can accelerate applications that access one or more Clouds and be tailored to achieve end-user performance. The talk will describe the challenges needed to realize this new vision of the Cloud and our progress to date.

Speaker's Bio:

Jon Weissman received his B.S. in 1984 from Carnegie Mellon University, his M.S. in 1989 from the University of Virginia, and his Ph.D. in Computer Science in 1995 at the University of Virginia. Associate Professor Weissman's research interests are broad, including: distributed systems, grid computing, operating systems, scheduling and resource management, storage systems, network systems, parallel processing, health care and medical applications. He's been honored with a promotion as an IEEE senior member and an ARL Success Story honor for his Virtual Data Grid Project. Weissman has also received the National Science Foundation's CAREER award, a Super Computing award, and a Teaching Medal of Excellence from the University of Virginia.

Refreshments will be served.**This lecture has a reception.**