



UMass Lowell Computer Science Colloquium Announcement

Speaker: Ning Wu, Tufts University
Date & Time: Wednesday, Nov. 15, 2006, 3:00pm--4:00pm
Place: Olsen 311, Refreshments are served at 2:30pm

Autonomic IP management and System Administration

Most autonomic systems require large amounts of human labor and configuration before they become autonomous. We study the management problem for autonomic systems, and consider the actions needed before a system becomes self-managing, as well as the tasks a system administrator must still perform to keep so-called "self-managing systems" operating properly. To understand this problem, we utilize the concept of a closure, which is a self-managing component of an otherwise manually managed system. To understand the role of closures in self-management, we implemented a prototype self-managing "IP address closure" that implements integrated DNS and DHCP. Experience with this closure shows that the system administrator is far from obsolete, but that the administrator of the future will have a different skill set than those of the present, focused around effective interaction with closures rather than management of individual machines.

Bio:

Ning Wu is a PhD candidate at Tufts University. His research area is system configuration management. He is a student member of USENIX.