

TALK ANNOUNCEMENT

Seminar Series: This is a talk in the Science of Complex Networks Seminar Series organized by the Network Dynamics and Simulation Science Laboratory at VBI (<http://ndssl.vbi.vt.edu/seminars>).

Speaker: Dr. Shrideep Pallickara, Community Grids Labs, Indiana University.
(<http://communitygrids.iu.edu/>)

Title: A Substrate to Facilitate Large-scale Distributed Applications

Date & Time: Friday, July 21, 2006. 10:30-11:30 AM

Location: 1880 Pratt Drive, Research Building XV at the Virginia Tech Corporate Research Center. Second Floor Conference Room
(<http://ndssl.vbi.vt.edu/contact.html>)

Abstract:

The proliferation of applications and the burgeoning data on the Internet continues to drive the ever-increasing scale and complexity of large-scale distributed systems. As application interactions have gotten increasingly network-bound, an infrastructure that can insulate applications from the vagaries in distributed systems will facilitate easier, richer and more complex application development. The central thesis of this talk is that messaging infrastructures are a critical building block for such large-scale systems. Furthermore, such an infrastructure should address issues related to disseminations, discovery, reliability, fault tolerance, ordering, security and thwart various attack scenarios. Additional services include coping with large payloads, network induced jitters, timestamp consistency and performance monitoring. The NaradaBrokering substrate (<http://www.naradabrokering.org>) addresses these aforementioned issues. In this talk, I'll describe the capabilities and services available within the substrate.

Seminar Series: "The Science of Complex Networks"

A new seminar series titled "The Science of Complex Networks" is being started. It is organized by the group NDSSL at VBI, on the web at <http://ndssl.vbi.vt.edu>. The theme of the seminar is mathematical and computational aspects of dynamics over large graphs. Examples include the dynamics on networks in communication, urban traffic systems, and networks arising in biological systems such as the molecular networks in the genome and the immune system.

The systems and network models that come from these various areas describe very different phenomena and dynamics and may seem to have little in common. Contrary to this intuition, there are large classes of models with fundamental similarities in both structure and dynamics. This common and generic structure has already motivated research, and is an extremely active area of current research.

The seminars will have a formal flavor, and at least proof ideas and outlines will be encouraged. Presentations of experimental data and findings displaying interesting phenomena that point to possible general results are also welcome.

See <http://ndssl.vbi.vt.edu/seminars>.