

First Workshop on the Design of Self-Managing Systems

Co-Chairs:

Lisa Spainhower (IBM, USA),
Aad van Moorsel (HP, USA)

Program Committee:

George Candea (Stanford University, USA)
Ian Foster (Argonne National Labs, USA)
Steven Hunter (IBM, USA)
Nirav Kapadia (Capital One, USA)
Matthew Kerner (Microsoft, USA)
Philip Vitale (HP, USA)

As systems become increasingly connected to an increasingly diverse set of other systems and environments, architects will lose their ability to intricately plan interactions among system components, because an increasing fraction of those interactions will be with foreign and possibly unanticipated systems or components. Humans will be increasingly less competent to install, configure, optimize, maintain, and merge massive, complex, and heterogeneous computing systems. They will not be able to make sufficiently quick, decisive responses to a rapid stream of changing and conflicting demands.

To meet these new and vast challenges, systems need to be designed so that they are self-managing. Self-managing systems automate all phases in the life-cycle of complex computing systems, from installation to run-time maintenance and optimization. This workshop will provide a forum for a small group of participants to consider new paradigms, system designs, and algorithms for self-managing computing systems.

We solicit papers addressing topics that include, but are not limited to:

- self-managing storage, peer-to-peer architectures, and grid architectures
- economic models for self-management
- biological models for self-management
- self-managing transaction systems
- adaptation to human errors
- limits and dangers of relying on self-managing systems
- decision algorithms
- data-mining, statistics, and other analytic techniques

Workshop attendance is open to all attendees registered for DSN-2003. We welcome participation by professionals with diverse backgrounds, who can contribute to advancing the technology and understanding of the workshop subject.

Invited Talks:

Federated, Available, and Reliable Storage for an Incompletely Trusted Environment (FARSITE),
John Douceur, Microsoft Research

Customer Requirements for the Virtual Data Center of the Future,
Nirav Kapadia, Capital One