

NSF Center for Autonomic Computing (CAC)

Established at Rutgers

The National Science Foundation (NSF) has awarded a grant to Professor Manish Parashar, in collaboration with Professor Jose Fortes at University of Florida and Professor Salim Hariri at University of Arizona, to launch the Center for Autonomic Computing (CAC). CAC combines resources from these universities, private companies, and federal government to make all kinds of computer systems and applications – from humble desktop computers to complex air traffic control systems and scientific and engineering applications – more reliable, more secure, and more efficient.

An autonomic computing system/application is any system/application that is designed to function with minimal management even as conditions, users and usage patterns change. Autonomic computing has a wide range of applications, and it can greatly reduce the growing costs of administrating computer systems and applications. Autonomics can protect against loss of service in systems performing critical functions, including those managing power grids, stock markets, and hospital networks. Autonomics can also greatly improve the speed, efficiency and robustness of complex systems that utilize a large number of hardware and software components, and enable them to self-optimize to use resources more effectively to improve productivity and conserve energy.

CAC is organized under the auspices of NSF's successful Industry/University Cooperative Research Centers (I/UCRC) program. The growing list of its industry members includes leading industry organizations and government agencies. The center is funded by membership fees from industry partners, university matching funds, and by the National Science Foundation's I/UCRC Program. The center's Web site is www.nsfcac.org.